THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND THE MIND." SERIES

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THE CULTIVATOR

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THE CULTIVATOR.

MONTHLY NOTICES.

COMMUNICATIONS received the past month, from J. P. Norton, J. M. Tower, S. Weller, C. D., A Subscriber, H. S. Randall, T. H. Hyatt, M. D. Codding, B. Woodcock & Son, J. Deveraux, T., L. Durand, H. Sanford, J. H. McDewell, J. J. T., Geo. J. Pumpelly, H., J. D. F., L——, Wm. Jennison.

We are indebted to Messrs. APPLETON & Co., booksellers, New-York, for a copy of Fresenius' "Elementary Instruction in Chemical Analysis," reviewed by our correspondent "A Practical Farmer," p. 160—To M. H. NEWMAN, bookseller, New-York, for "The Housekeeper's Annual for 1845," and the "Kitchen Directory and American Housewife," both valuable works for the ladies. —To J. S. SKINNER, Esq. for a pamphlet on Guano, detailing a variety of experiments with this manure, made in this country and in Europe. To THOMAS HANCOCK, Nurseryman, Burlington, N. J., for a copy of his new Descriptive Catalogue of Fruit and Ornamental Trees, Green-House Plants, &c.—To P. L. SIMMONDS, Editor Colonial Magazine, London, for a number of his Magazine, and for the Journal of the Ag. and Hort. Society of Western Australia for 1842.

☞ Our esteemed fellow citizen, Professor E. N. HORSFORD, recently sailed for Europe with the intention of spending several years in the investigation of chemistry, and the natural sciences, under the direction of Professor LIEBIG, and other distinguished men, in different parts of that continent. Professor H. is a young gentleman who is already favorably known in this country for his scientific investigations, and we doubt not that through his characteristic energy and industry, a fund of useful knowledge will be accumulated, which will not only be highly gratifying to himself, but will, should his life be spared, render his future labors highly valuable to his countrymen. It affords us great pleasure to inform our readers that occasional letters from Professor Horsford, during his residence abroad, will be given through the columns of the Cultivator

IMPORTED DURHAM COW.—GEORGE VAIL, Esq. of Troy, informs us that he has received by ship ROSCIUS, Capt. COLLINS, from THOMAS BATES, Esq., Kirkleavington, Yorkshire, England, a young cow, four years old, called *Lady Barrington* 3d. Her pedigree will be found in the second part of vol. 5th of the Herd-book. She was by Mr. Bate's bull *Cleveland Lad*, (3,407) which took the highest premium at the show of the Royal Agricultural Society at Liverpool, in 1841. Mr. Bates obtained the first of the Lady Barrington family, in 1831. They are said to have been the favorite tribe of cows of the late Lord Barrington, from 1794. It will be seen by an advertisement in this number, that Mr. Vail offers a few of his Durhams for sale.

IMPORTATION OF DORKING FOWLS.—We were shown a short time ago, by L. F. ALLEN, Esq. of Buffalo, several very fine Dorkings, just arrived from England. Mr. Allen intends these for making a fresh cross on the fine stock he has for several years had. They are an excellent breed of fowls. Mr. H. T. Chapman, of New-York, also received some Dorkings by the same vessel which brought Mr. Allen's.

WILD TURKIES.—A friend has left in our charge two pair of wild turkies, brought from Illinois. They were hatched from eggs of the wild turkey, obtained in the woods, but being brought up in a state of domestication, are perfectly tame and contented. They are yet young, being chicks of the past summer. Great advantage is known to result from crossing the common domestic turkey with the wild one. The progeny are much more hardy, make larger birds, and grow up with less difficulty. The flesh is also thought to be improved. Those left in our care, are for sale at $10 per pair.

CHOICE POTATOES.—In the October number, we spoke of a superior kind of early potatoes, grown on Professor Hall's place, near this city. We acknowledge the receipt of a sample of these potatoes, which may be seen at this office. They are white, of good size and excellent quality—are very early, and yield well. They produced the past season, on soil of medium quality, near three hundred bushels per acre, and were wholly ripe before the *blast*, which generally struck the potatoes in this region, came on—being fit for market by the fourth of July.

THE CULTIVATOR ALMANAC FOR 1845.—Such has been the demand for this Almanac, that we have already disposed of over sixty thousand copies. Orders for any section of the country can be supplied—price $15 per 1000—$2 per 100. For the information of our friends, we would state that the "Cultivator Almanac," can be obtained of M. H. Newman, bookseller, 199 Broadway, New-York—Carey & Hart, booksellers, Philadelphia—Armstrong & Berry, booksellers, Baltimore—W. H. Moore & Co. booksellers, Cincinnati—A. D. Phelps, 124 Washington-st., Boston—Henry Vail, Montpelier, Vt.—David Kirkaldie, Rutland, Vt.—J. C. Derby & Co., Auburn—Wm. Alling, Rochester—T. Morehead, Erie, Pa. Wm. S. Maynard, Ann Arbour, Mich.—Graves, Wood & Co. Macon, Ga.

THE BITTER ROT IN APPLES.—Mr. J. H. McDewell, of Cumberland county, Pa., informs us that a ne gbor of his had twc apple trees, the fruit of which was much affected with the *bitter rot*. Noticing that the ground under the trees was covered with White Plantain, which he thought indicative of a poor soil, he manured the

ground heavily with stable manure, and the result is that the trees bear annually fine crops of fruit, not in the least subject to the rot.

LUCERNE.—If J. W. J. of Westbrook, N. C., will reperuse the article on the culture of Lucerne, Sept. No. p. 173, he will find the information he asks for. It is to be sown in *drills* (not hills) or rows—the *rows* to be ten inches apart. Sown in this way, ten pounds of seed will be sufficient for an acre.

THE AMERICAN FARMER.—The publisher of this well known paper, Mr. S. SANDS, being about to engage in the publication of a daily journal, offers the Farmer establishment for sale. It affords a favorable opportunity for a gentleman who has a taste for agricultural pursuits, to engage in their promotion, with profit to himself and advantage to the public. Address Mr. S. Sands, Baltimore.

THE CROPS IN ALABAMA.—Extract of a letter from Dr. N. B. CLOUD, dated La Place, Macon county, Sept. 30:—"The crops in this county the present season may be considered upon the whole as good—both cotton and corn. We experienced a most injurious drouth in the early part of summer, which we supposed for a while had cut the crop short at least one half, but in this we shall be mistaken, as the crop is gathering well. In the prairie lands, the wet since the drouth, and the worm and rust consequent thereupon, have produced considerable damage, which has not been the case upon the sand lands to but a very limited extent. The new crop is selling in Montgomery at from 6 to 6¼ cents per lb. No new corn selling—50 cents per bushel is being asked."

At page 88, vol. 10, of the Cultivator, Dr. C. will find the recipe for making stucco whitewash, which he inquires for.

ENCOURAGEMENT TO SILK GROWERS.—M. VAN SCHAACK, Esq., of New-York, has proposed to give $1,000 to the American Institute, to be awarded as premiums, in sums of $100 annually, to encourage the growth of silk.

GOOD COTTON.—The Macon (Ala.) Republican of Oct. 10, says—"We have in our office a single *limb* of a cotton stalk, which has on it *sixteen* bolls! It was sent us from the plantation of Col. WHITING OLIVER, of this county. We have never seen its match."

DISEASE IN POTATOES.

We have numerous accounts of the "*rot*" in potatoes. It is, however, much more prevalent in some districts than in others. In a late visit to the easterly part of Massachusetts, we found very little complaint of this malady. In some cases the vines have blasted, but the tubers, excepting on very wet and heavy land, or where planted late, have not much rotted. As to the original cause, we are still about as much in the dark as ever. Mr. Teschmacher, of Boston, and some others, think the decay is occasioned by a fungus, but what produces the fungus, is not yet ascertained. Some peculiar atmospheric influence has undoubtedly been the remote cause of the defect. The necessary agency of electricity in animal and vegetable life, is well known; but what particular combinations, states or conditions of this element, are essential to the development or continuance of this life, we know not. It is evident, however, that any unusual variation of so important a principle, would sensibly affect vegetation.

Our accounts from Europe, state that the disease has been more or less prevalent in many parts of that continent for four or five years. There is an elaborate article on the subject in the last number of the Quarterly Journal of Agriculture, but nothing particularly new or important is brought out. The rot is said to assume a varied character, and its different forms are designated as the "Wet and Dry rot."

We have received from a correspondent at West-Schuyler, Herkimer county, who signs "J. D. F." an article from which we condense the following.

The disease first made its appearance in that neighborhood last year, about the beginning of October, but did not much affect the potatoes until after they were dug. This season, the decay commenced much earlier, and prevails more extensively. In many instances the crop will be lost—whole fields are abandoned as not worth gathering. Our correspondent states that on his farm, "the potatoes are large and abundant, but when dry, three-fourths of them are more or less decayed, emitting a fetid odor, truly sickening." "I find," he observes, "on most of them, a small fungus, in appearance like a bluish mould, and those that are close to each other in the hill, unite and become one mass of fetid matter." From considerable inquiry, he has come to the conclusion that all sorts, and all varieties of potatoes, are equally effected, "though some fields much more than others." He thinks "those planted in the richest soils, have perhaps suffered a little worse than those on poorer lands." Between early and late planting, he can not perceive much difference.

"J. D. F." suggests that the cause of this defect "may be found in our seed having been planted too long without change." He continues, "if this is the case, the remedy must be in procuring seed potatoes from a distance. Should I live, I intend to procure some both from Ireland and North Scotia. Perhaps potatoes raised from the seed of the potatoe-ball would do better. Will some of your correspondents give through the Cultivator the process of saving the seed and planting?"

We shall not be in haste to advance *theories* on this subject, but shall collect all the facts in our power, and lay them before our readers. In relation to the communication of "J. D. F." we would remark that the idea of the disease having originated in the degeneracy of varieties from age, has been before advanced by others; but for our own part we cannot think facts support such a conclusion. Numerous instances might be cited, where those kinds which have suffered most, have been those which were produced from the ball within a few years, and many of the kinds which have been least affected, are the oldest known in the country. The disease may be called an *epidemic*, and in reference to it we feel warranted in laying down the following as facts.

First—that certain localities or neighborhoods have been more subject to it than others. *Second*—that although the *blast of the tops* (in the same variety) seems quite general on all descriptions of soil where the disease prevails, yet the *decay of the tube* is more frequently occurs on wet and heavy, than on light or loamy soils. *Third*, that certain *kinds* of potatoes, which have been generally known as less *hardy* than others, are the first to be affected, and that other and more hardy kinds are more exempt from attack; but in the most infected districts, the malady may affect all—corresponding in this respect to epidemics among animals. Some are more predisposed to the disease than others, yet where it assumes the most malignant form, all may be swept off.

In relation to raising potatoes from the ball, we have several times produced them in this way. We have generally obtained several varieties from the same planting of balls—some of which were worthy of cultivation, and some nearly worthless. The same rule prevails here as in raising apples from seed—among many worthless kinds, we get, occasionally, a superior one.

The balls should be gathered in the fall, from which the seeds may be washed and dried, or the balls may be kept in the cellar all winter, and planted in good mellow soil in the spring. When fairly up, they may be carefully transplanted in rows two feet apart, and eight inches in the row, well hoed and kept clean from weeds. Some of them, if the season is good, and they are well managed, will grow to the size of hen's eggs the first season. At the time of digging, sort out the varieties, and plant them separately the next spring. The respective qualities of the different kinds, can be told pretty accurately the second season, when such as it is advisable to preserve, may be adopted, and the others rejected.

In Mr. Norton's letter from Europe, in this number, will be found some interesting remarks on the subject of the disease in potatoes.

Mr. T. R. Stackhouse, of Jefferson county, informs us that where his potatoe-vines were struck with rust, he found the potatoes much more likely to be affected with rot, and those tubers were most affected that came nearest in contact with the stalk.

CROPS IN MISSISSIPPI.

By a letter from M. W. Philips, Esq., of Miss., we learn that the cotton crop of that neighborhood was being gathered in good order; but an opinion could not yet be formed in regard to the yield of this season. Dr. Philips says, "there is no crop so uncertain as the cotton crop. As to saying what it will be, even if to all appearances half done, yet there is uncertainty—a late fall will increase it vastly. This year, I have 9 acres to the hand in cotton, and excepting two of them, I should make an average of 1,600 lbs. per acre—crop planted early, cultivated well, often and late—but I shall not make over my last year's crop, (which was 6¼ bales from 9 acres,) *if I do that.*"

Dr. Philips thinks that the cotton resources are greater than many suppose. He says, "we can grow in a favorable season, such as 1830 or 1839, full 3 millions of bales, *which will be done,* (not this year, I mean,) and when done, look out for land and negroes going down. I cannot stir my fellow citizens up on this important matter—they plant too much cotton, and too little of other things. By and by, when starvation stares them in the *meat-pot,* they will want fields of grass, and orchards and gardens."

Dr. Philips observes that a great interest is beginning to be taken in his region of country in the production of fine fruits. For peaches, plums, nectarines, figs, &c. he thinks the climate and soil of Mississippi admirably adapted.

SAMPLES OF WOOL.—We have shown the samples of wool sent by Dr. Philips, to one of the most extensive wool-dealers in this city. He informs us that the samples of lambs' wool, marked 1 and 2, are worth at this time, the following prices, viz: No. 1, 33 cts., and No. 2, 35 cts. per pound. That the sample marked No. 3, "Saxon Ram (*'Father Abraham,'*) would be worth, if well washed, 40 cents per pound.

It is proper to remark that all wool has lately fallen in price in the eastern markets. It seems to us that the sample marked No. 3, is nice wool, and if properly cleansed would be highly valued by the manufacturers of fine cloths. The lambs' wool cannot be so well judged of. The samples seem to have come from a variety of sheep, in which the lambs are born covered more or less with hair. In some of the Spanish varieties, the lambs are always hairy at birth, but the hair afterwards comes off, and is succeeded by fine wool. In many cases where the lambs are hairy at first, the fleece improves much in fineness after the first shearing.

NEW PUBLICATIONS.

DICTIONARY OF THE FARM, by Rev. W. L. RHAM.—This work, the publication of which has been sometime delayed in consequence of the sudden death of the author in 1843, has just made its appearance. The work is arranged in alphabetical order, neatly printed, and numbering 576 pages. We have looked over the book with some attention, and can say that we have seen no publication in which the researches of science and study are more happily united with the dictates of experience and sound judgment; and we have no hesitation in recommending the "Dictionary of the Farm," to the attention of the agriculturists of this country. Published by Chas. Knight & Co., London, and for sale by Wiley & Putnam, and D. Appleton & Co. New-York—price $2,50.

FARMING FOR LADIES, or a Guide to the *Poultry-yard, the Dairy, and Piggery,* by the "AUTHOR OF BRITISH HUSBANDRY."—The character of this work will perhaps better appear by the following extract from its preface, than from any description of our own:

"'Our business in life is to be happy,' and the true way of making it so is to be contented with a moderate income; but, in acquiring this, it is not perhaps so much the art of *gaining it,* as that of judiciously *spending it,* that we have to learn, and it is only in well regulated families, conducted by a careful housewife, that it is to be known. She it is on whom rest the enjoyments of home. It is on her management that domestic comfort depends; it is by her cares that she draws around her family circle those social pleasures which endear it to the heart of every inmate of good feeling; and the man who does not duly appreciate her efforts for that purpose, assuredly does not merit the smiles with which she cheers him on his return from the anxieties of the day."

This little treatise is neither intended for the mere cottager, nor for persons of large fortune, but for those ladies in middle life who study healthful domestic economy, either for pleasure or the profit it affords; though, in saying this, we may justly add—that a cottage housewife might gather useful hints from its contents, and that a duchess would lose nothing by its perusal.

The work is got up in fine style, accompanied with beautiful illustrations, and combines, in an attractive manner, the ornamental with the useful in domestic economy. For sale as above, price $2,75.

VERMONT CATTLE SHOWS.

During the past year, several Ag. Societies have been organized in Vermont, and their fairs are exciting the attention of the farmers as they have done in other places? The first Fair of the *Windham County* Society was held at Newfane on the 25th and 26th Sept. The meeting is said to have been the largest ever held in the county, with the exception of a political meeting in 1840. There were over 1200 wagons present. Among the cattle, was a team of sixty yoke of oxen from West Newfane, and there were many fine animals of all kinds present. The show of domestic manufactures, butter, cheese, maple sugar, fruits, vegetables, &c. was very fine. An address was delivered by Hon. Charles Hudson of Massachusetts. The premium for the best crop of *wheat,* was given to D. Dexter, Jr. Dover—42½ bushels per acre; and that for the best corn, 82 bushels per acre, to Martin Gates, Dummerston—for the 2d best, 70 bushels, to W. H. Williams, Newfane.

The *Addison County Fair* was held at Middlebury on the 1st Oct.—3000 were estimated to be present. The exhibition of stock, implements, household manufactures, &c. was highly gratifying, and an address "admirably adapted to the occasion, was delivered by Farmer Jennison, former governor of the state." We give the premiums on sheep at the request of a subscriber—for fine wool buck, 1st, to D. & G. Cutting, Shoreham—2d, to P. Ellithorp, Bridport—3d, to Mr. Northrop, Shoreham—4th, to T. Stickney, Shoreham. For best fine ewes—1st and 3d, to T. Stickney—2d, to D. & G. Cutting. For best five lambs—1st and 3d, to D. & G. Cutting—2d, to T. Stickney. Mr. Hinds of Brandon, presented for exhibition only, a Rambouillet ram, from the flock of Mr. Collins of Hartford, Ct., which, says the Northern Galaxy, was "a strongly constituted and beautiful specimen of the animal, and for fineness, combined with those qualities which render a fleece valuable, would well compare with any buck present."

CALEDONIA AG. SOCIETY.—Mr. J. P. FAIRBANKS will please accept our thanks for a report of the exhibition of the Caledonia County Agricultural Society. The exhibition took place on the third of October. There was a good show of live stock in general, (with the exception of sheep,) and fine specimens of implements, dairy products, fruits, vegetables, and household fabrics.

FEEDING FOWLS

"A Subscriber" inquires "which is the best grain for feeding fowls, eggs being the object?"

Fowls require a variety of food. Grain of all kinds is good. *Wheat-screenings,* which can be had at all mills where wheat is ground, constitute a cheap and good feed for fowls. Buckwheat, barley, oats and Indian corn, should also be given occasionally. They should also have animal food. This may be supplied from the offals of slaughter-houses. If they are kept confined, they should have occasionally some cabbages cut up and given them. Potatoes and turneps will also be found useful.

"Two or three spoonsful of strong ley, made of oak ashes, and mixed with molasses, are recommended as a positive cure for croup."

TAKE CARE OF YOUR WOODLANDS.

There are very few things in which farmers in general exhibit such gross waste and want of forethought, as in their treatment of their woodlands. Dependent as the great majority must always be on these for fuel; diminishing rapidly as they must be in our climate annually; a large proportion timbered with trees that do not readily shoot up, and will not grow again without some protection; we still see the noble trees of our original forests as carelessly and as uselessly felled as though they were not the growth of centuries, and like Jonah's gourd would spring up again in a night. In the management of our woodlands some things are deserving of notice, that are too generally entirely overlooked.

The first thing, and it is an indispensable one, is, that the woodlands should be well fenced. We can never have a growth of young timber, particularly on lands originally covered with beech and maple and their kindred trees, unless this is done. It is true thousands of young trees will germinate, but so fond are cattle and sheep of their young foliage, that none to which these animals can have access will be permitted to grow. It is only after a thick growth of underwood, sufficiently tall to be beyond the reach of cattle, has been secured, that any animal should be admitted to the wood lots. We have seen a beautiful wood lot on which many thousands of thrifty young trees from three to five feet in height were growing, reduced in a year or two to the condition of an open wood, and the young growth entirely destroyed, by being carelessly thrown into a cattle range; and there is scarcely any wood lot, however destitute of young trees it may now be, that will not be covered with them in a short time if kept safe from the intrusions of animals.

The second thing to be remembered is, never to cut a tree needlessly. There are many who when they want a piece of timber, no matter how small it may be, instead of first seeing whether the want cannot be supplied from some already fallen, or timber already on hand, take their axe and improvidently prostrate any tree they can make subserve their present purpose, without reference to future value or use. Never fell a tree until you have ascertained its value for general purposes, for fuel, and not till you have found it is absolutely necessary.

Another thing not to be forgotten in the treatment of woodlands is, always to select those trees which have arrived at maturity, are the slowest in their growth, or have begun to decay. In a thrifty woodland, the greatest amount of growth, is usually with the younger timber; for though there will be some large trees that will increase as fast as smaller ones (and consequently give a much greater annual increase of wood from their greater diameter) yet there will also be many with no perceptible growth, or on which the process of decay has actually commenced. Such are the trees that should be selected for timber or fuel; and a double advantage will result from this course, thrifty timber will be saved, and the younger growth benefitted by more ample exposure to the sun and air.

It will be found of essential service in the preservation of woodlands, and in increasing their value, to keep all vacancies that may occur, either naturally, or by the falling of trees, filled by transplanting. We know of some farmers who keep a nursery of locust for the express purpose of increasing the value of their wood lots by transplanting this excellent timber tree wherever an opening offers. Others use those kinds of young trees which are readiest at command, or to which the soil seems most congenial. The kind of tree transplanted is of comparatively little consequence, provided it is of sure and quick growth, and is fit when grown for either timber or for fuel. By attention to the points we have here indicated, the value of our wood lots might not only be greatly increased, but the scarcity of wood with which so many of our farmers are already severely threatened, be averted.

HORTICULTURAL AND FLORAL EXHIBITION.—The exhibition of the Horticultural and Floricultural Society of Columbia county, N. Y., took place at Hudson on the 20th September. A beautiful, interesting, and instructive address was delivered on the occasion by Mr. J. S. GOULD, of Stockport. This Society, we are glad to learn, is in a prosperous condition, and will, it is hoped, be the means of extending a correct taste, and judicious management in the culture of fruits and flowers.

AGRICULTURAL EXHIBITIONS.

The various Agricultural Societies of the country, have generally held their exhibitions during the two last months. We have received accounts from the following county societies in this state, viz: Erie, Ontario, Onondaga, Chautauque, Monroe, Madison, Oswego, Cayuga, Herkimer, Saratoga, Rensselaer, Columbia, and Dutchess, and also accounts from many societies in other states, but our limits only permit us to give a general notice. In most instances, the shows have been much more spiritedly attended this season, than for several previous seasons. In the New England states, so far as we have learned, this has been particularly the case. Nearly all the accounts from that quarter, inform us of the improvement in the character of their exhibitions. We regard this as good evidence of the advancement of agricultural improvement. We believe the agricultural societies and agricultural papers, have already been the means of greatly improving the husbandry of the country, and of largely augmenting the products of the field and garden. An intelligent gentleman, the Rev. MERRILL ALLEN, of the county of Plymouth, Mass., observed to us in conversation, the other day, that he felt confident the agriculture of that county, though the soil was generally not of the best quality naturally, and had been considered by many as worn out years ago, had been, within the last fifteen years, improved from twenty to fifty per cent. To the interest created by the well-managed agricultural society of that county, we think is to be mainly attributed this improvement, and we doubt not that similar beneficial effects have followed and will continue to follow the organization and proper management of such societies everywhere.

PLANTING TREES.

Reader, have you not some vacant spot in your orchard, some nook in your garden, some unplanted road side, some unoccupied place in your yard where some trees might be planted to advantage? Look around and see if there is not room for some, or perhaps many, of the kinds useful for timber, or their fruit, or ornamental purposes. It is possible you attended to this matter fully last spring, but the chances are, that you will on examination, find room for more trees. If so, now is a very good time to supply the deficiency; not so good, perhaps, as the spring would have been, but too good to be allowed to pass without improvement. Trees may be transplanted at any time after the growth of the season is over, with perfect safety, and they may be removed at any time, if the fine roots are undisturbed, and during removal retain their hold on the earth. When trees are transplanted in the fall, it is necessary to guard against two dangers to which spring planted ones are not so much exposed. The first of these is, they are apt to become loose in the ground from the action of the winds, as the roots do not take hold of the soil as quickly in the fall as in the spring; and the second is, water is apt to settle in the holes dug, and expose the roots to the injurious action of stagnant water. To prevent the first, if the tree is small, a stake well set in the ground, to which the tree, wound with bass matting, cloth, or something to prevent rubbing, may be securely fastened. If large, and the roots spreading, three sticks placed in a triangular form around the stem, and well fastened down at each angle by wooden hooks driven into the ground, will usually keep the tree in its place. If the soil is tenacious, and there is danger of the holes, when the tree is put in them, becoming pits of stagnant water, drains must be made to them which will prevent the evil at once. Where a number of trees are to be set on such a soil, it will be much benefited by a thorough deep plowing, which will render the soil generally more pervious to water, and prevent its ready accumulation.

CONNECTICUT CATTLE.

Connecticut people have reason to congratulate themselves in many respects. They have done more to people the vast west, and we may add, to christianize and civilize it, than any other State in the Union; and wherever they go, they are apt to carry their industry, morality, and love of knowledge, things they acquire in their youth, with them. In other respects, too, Connecticut furnishes examples well worthy of imitation. She has some poor land, and some poor farmers, but she too has much excellent land, and many first rate farmers to till it; and these men have made the land of steady habits almost a model so far as regards agricultural pursuits. A person familiar with the condition of things there forty years since, and particularly with the agriculture of that period, can hardly realize the changes that have taken place for the better within that time. But we took up our pen to speak of Connecticut cattle, working cattle, for in no part of the United States can so many good working cattle be found in proportion to the population as in Connecticut. The other New-England States, to their honor be it spoken, are not far behind in this respect; would that we could say the same of New-York. These working cattle too, are not the refuse of their yards, worked because they are good for nothing else, but the major part of them will be found of a rich red, the Devons or their crosses, fine formed, lively animals, walking off like horses, and making the heart of the farmer glad to look at them. To show that we are not exaggerating matters, or allowing our fondness for fine cattle to bias our opinion, we give a few examples selected from the reports of the various Agricultural Societies of that State, for the year 1843, which are now before us.

New-Haven County Fair,.....	513	yokes.
Hartford County Fair,.....	100	"
Union Ag. Society, 4 towns,.....	244	"
Bridgport, County Fair, ...	530	"
Danbury Fair,.....	350	"
Canton, 1 town,.....	130	"

Bridgport and Danbury are both in Fairfield county, so that at the fall exhibition of 1843, this county produced no less than 880 pairs of working cattle of the best kind. New-Haven, too, had on the ground 513 pairs; and there were other exhibitions that were not far behind in respect to numbers. Of one thing we may be certain, a population cannot be poor, which can produce as many cattle fit for tilling the soil, or for the butcher, as can Connecticut. Would not many of the other States, so far as the labor of animals is concerned, do well to take a lesson from that State in this respect? Would it not be well,if, in a large portion of New-York, certainly in all parts where wheat growing is not the principal business, cattle, such as may be counted by thousands in Connecticut, were substituted for the lean, worthless horses found on so many farms? For all common farm work, cattle are as good as horses; and after they are unfit for the cart or the plow, they may be converted into beef; while the horse, disabled by accident or by age, is given to the crows or the dung-hill.

DR. BEEKMAN'S ADDRESS.

Dr. BEEKMAN will accept our thanks for a copy of his Address before the Dutchess County Agricultural Society, which we have read with much satisfaction, and did space allow, we should be pleased to transfer a larger portion of it to our columns. We give the following paragraph, as particularly worthy of attention, showing, at a glance, the great defect in our husbandry, and the means for its improvement:

"Depend upon it, the great defect of our farming is the scanty return which we make to the soil that we crop so closely; and when you complain of poor returns for your labor, at least in the quantity gathered, it is upon the principle that you are willing to work your horse but not to feed him. Until, therefore, we feed with a more liberal hand, we shall not be more liberally rewarded. If I compare our farming, however, with what it was twenty years ago, I see a decided improvement; better houses, better barns, better fences, better, that is cleaner fields, better crops, and stock essentially improved. With all these man improves. But there is a vast deal yet to be done, and we must not talk of good farming until we can in all things double, and in many treble our present product; for let me tell you the productive powers of the earth are almost illimitable."

THE AMERICAN INSTITUTE.

The Annual Fair of the Institute was opened at Niblo's Garden, New-York, on the 8th Oct. The exhibition of samples of our manufactures and arts, was extensive and creditable to the skill and ingenuity of our country. The Agricultural and Horticultural Departments, we thought were not quite equal to some former years. At the show of animals on the 16th and 17th, there were some good stock, though the number was small. Among the horses was the splendid imported Norman "Diligence," and two of his colts, from Mr. E. Harris of New-Jersey, and some fine horses from Mr. Long of Washington county. Among the cattle, we particularly noticed the fine bull "Marius," belonging to Mr. Oliver of Sing-Sing, imported from the herd of Earl Spencer, which attracted so much attention at Poughkeepsie, for his superior symmetry and excellence—a pair of beautiful Devons, and a superior Ayrshire cow, whose owners we could not ascertain. There were also some good Durhams exhibited. The number of sheep and swine was small, but included some fine animals of both kinds.

In the horticultural rooms were some fine specimens of fruits and vegetables. Among them were handsome and extensive collections of pears from Mr. Wilder of Boston, and Mr. Walker of Roxbury, and extra large grapes from Mr. Cushing's grapery at Watertown.

The SILK CONVENTION, at which about 50 delegates attended, was held during the exhibition of the Institute. The Rev. J. R. Barbour delivered an address on the culture of silk. Mr. B. showed that the culture and manufacture of silk is perfectly practicable, in this country. That its production is rapidly increasing, and that there is no obstacle to prevent our supplying ourselves with this article from our own hands and labor, thus saving to the country $20,000,000, annually.

MADISON COUNTY FAIR.

The Fair of this County was held in Cazenovia on the 1st of October, was well attended, and accompanied with some very pleasant incidents. The party liberty poles were stripped of their partizan banners, and others more appropriate to the occasion, took their place—the whig pole bearing a plow with the motto, "Speed the Plow—it feeds all"—that of the liberty party, a gigantic arm, with an anvil and plane, intended as a welcome to the mechanics—and that of the hickory tree, a banner with a churn, sheaf of wheat, &c. The ladies of Cazenovia presented the Society with a beautiful banner of rich blue silk, seven feet by five, painted by W. H. Burr of Syracuse. "On one side it bears," says the Madison Co. Eagle, "the picture of a stout mower who has just paused in the middle of a swarth to whet his scythe, while on the back ground appears a wagon loading with hay, and the house and barns of the farmer. At the foot of a tree close by, lie his coat and jug of *cold water* which are watched by his dog. On the other side is a winter scene, in-doors. In a comfortable kitchen, the farmer's daughter is at work at her spinning-wheel, while another female is busy in the 'buttery,' at the other side of the room. The fire burns briskly in the chimney, and the mantlepiece above is graced with the almanac, watch, and candle-sticks which are usually to be found in that position."

TO MAKE GOOD PICKLED PORK, simply pack the side-pieces in a barrel or cask, with plenty of salt on all sides of each piece, and when full, roll it to the pump, and pump in water till you see it cease to sink or to moisten the pork on the top of the barrel, then lay a flat stone as large as the vessel, to keep the pork always under the pickle: cover the cask, to exclude flies.—*West. Farmer.*

Foreign Correspondence.

MR. NORTON'S LETTERS—No. IV.

[The following letter did not reach us till after our last number had gone to press.—ED.]

Lab. of Ag. Chemistry Association, }
Edinburgh, Aug. 22, 1844. }

Mr. L. TUCKER—You have probably received papers containing accounts of the great annual show of the Highland Society, held this year in Glasgow; I will therefore not attempt any description of the exhibition itself, but will merely say that the show of animals and implements, was on a magnificent and immense scale, and the number was perfectly bewildering. A week at least would have been necessary in order deliberately to view every thing.

There were, however, some meetings incidental to the occasion, which were specially interesting to me, and of which I will endeavor to give a brief report.

First, I would notice an Education meeting. Arrangements had been made by which five boys, from the Lanne Agricultural School near Belfast, in Ireland, were present, with their teacher, Dr. Fitzpatrick, from Lanne, Mr. Skilling, from Dublin, Sir Robert Bateson from Templemoyle, and other gentlemen interested in the cause of Agricultural instruction, were also present. The boys were from 14 to 16 years old, and had been in the agricultural class two years. Prof. Johnston stated that by this meeting it was hoped that light might be thrown upon two points. 1. Is it possible to give boys instruction in agriculture, practical and scientific, that will be of use to them in after life. 2. Can this be done without interfering with other studies. These questions were both most distinctly answered in the affirmative by numerous gentlemen present, connected with agricultural schools in Ireland and England. The boys before mentioned were finally placed upon the platform, and with a view to answering the second inquiry were questioned in geography, grammar and arithmetic, by Mr. Gibson, inspector of schools. The examination was a somewhat severe one, especially upon grammar and geography, yet notwithstanding the embarrassments and novelty of their situation they appeared admirably. I think that some one of them answered every question. They were then examined upon various points in chemistry connected with agriculture, by Prof. Johnston, and lastly, upon practical farming, by various other gentlemen. Their answers showed not only that they had learned by memory, but that they had also reflected. Frequent and irrepressible bursts of applause interrupted the examination, and the most sceptical were convinced. These boys devote one hour each day to scientific and practical agriculture, and once in the week they are questioned upon the studies of the preceding five days. An enthusiasm was aroused by this exhibition which will hardly expend itself in mere words. A resolution was passed "that it was the opinion of the meeting that agricultural instruction should be introduced into the schools of Scotland." A large committee of influential and distinguished gentlemen was appointed to deliberately consider the subject. I may here mention that Mr. Skilling, superintendent and teacher in the Normal farm school near Dublin, gave most ample testimony in favor of Prof. Johnston's works. They are introduced into all the Irish schools, and their importance impressed upon every teacher. The Catechism was written expressly for schools, and has been found of signal benefit.

A most excellent feature of this Show was the introduction of public breakfasts, at which certain questions of interest to the farmer were discussed. The subjects were fixed and made public before the meeting, so that gentlemen came prepared with facts and arguments. I was exceedingly interested at the last one. The subject was "the disease of potatoes." The discussion was most animated, and lasted more than two hours after the active business of the meal was over. A large number of gentlemen spoke, and almost every one brought out new facts and new views. All agreed that the evil was wide spread and increasing. Each person supposed to know any thing of the subject, was in turn called upon to give particular statements both as to his own experience and that of his district, his views of the cause and the remedy. Mr. Alexander of Southbar, a very distinguished farmer, attributed much of the disease to improper stowage of the potatoes during the winter; to placing them in large masses so that they heated and lost much of their vitality. He had never known a failure except from improper treatment. Mr. Fleming of Barochan, an equally eminent authority, said that the less ripe the potatoe when dug, the less likely to fail. After raising several thousand varieties from *seed*, he has *never* produced a healthy kind. For several years he has dressed his potatoes with certain saline substances, such as sulphate of magnesia, nitrate of soda, &c. &c.; all those so treated, have succeeded admirably. Mr. Anderson, a manager of large estates in Ireland, laid much stress upon the thorough draining, subsoiling and pulverization of the soil. He digs his potatoes before they are ripe, selects the most perfect tubers and buries them in shallow, narrow pits, from two feet to thirty inches wide, heaping the earth as high as possible. There they remain until the planting season arrives; the drills are then opened, the manure placed, the potatoes taken out, planted and covered within half an hour; by following this course, he has no disease. Several speakers mentioned the fact that potatoes which had lain exposed to the sun until they became green, make the best seed. This sketch will give an idea of the way in which these breakfasts are conducted. They ought to be accompaniments of every agricultural meeting. In the present instance, practical men from all parts of the country came prepared to give their views upon a certain subject, and the result was such an amount of information and of facts as could have been in no other way so easily collected. Each farmer went home with a large stock of suggestions and increase of knowledge, whereby to conduct new and more intelligent experiments. After a few such conversations, they will undoubtedly be able to devise certain means for the arrest of this formidable disease. As with this subject, so with every other, much light would be accumulated, were practical men freely to exchange their facts and theories. If those interested in agriculture could be induced to enlist with spirit in one such conversation, they would be most amply repaid; and judging from my own experience, look forward with pleasure to future opportunities of a like nature. I am, very truly yours,

JOHN P. NORTON.

FOREIGN INTELLIGENCE.

By the last steamer at Boston, we have received our regular files of foreign periodicals, including the new Part of the Journal of the Royal Ag. Society—the Journal of the Highland Society for Oct.—the Farmer's Magazine, New Farmer's Journal, Mark Lane Express, Gardener's Chronicle and Ag. Gazette, &c. &c.

THE CROPS.—The English papers inform us that favorable weather has enabled the farmers to secure their grain-crops in good order. The yield of wheat is pronounced a good one. The Mark Lane Express says,—"Taking this year's produce of the grain crops, from one end of the country to the other, we maintain, and we think upon the best authority, that it has never been exceeded, though it might have been equalled in quality in any previous year." * * * "It is admitted on all hands, though of course partial deficiencies are to be met with, that the yield of wheat this year, for England, is a very large one; considerably above an average of years." Oats and barley are not so abundant, and some importations will be required to supply the deficiency From Quebec and Montreal 370,000 barrels of flour have been sent to England this season. Last year there were sent 180,000. With American provisions the markets are well supplied. The quality being good, a fair demand has sprung up, and prices have slightly improved.

A cargo of American hay has been received at Liverpool. It was not very well liked—being pronounced coarse, and not well cured.

Hops. Owing to the generally light crop in most districts the present year, and the small quantity of old hops on hand, the prices of hops are expected to be higher this year than for some time past. Prices are given as

(according to quality) ranging from 6*l*. 8*s*. to 10*l*. 10*s*. per cwt.

SHOW OF THE HIGHLAND SOCIETY AT GLASGOW.—This exhibition took place in August. The entries of stock were larger than on any previous occasion. The number of lots were 1,404, amongst which were 222 Ayrshire cattle, 55 West Highland cattle, 160 horses, 117 sheep, 184 lots of butter, 83 lots of cheese, and 176 implements.

BAKEWELL COW.—It is sometimes stated that the *Dishley* or Bakewell variety of Long-Horn cattle are extinct. It seems it is not so. A late English paper states His Royal Highness Prince Albert, received a prize of ten sovereigns and a silver medal, at the last exhibition of the Royal Agricultural Society of Ireland, "for a cow of the breed of the late Robert Bakewell, of Warwickshire."

SALES OF STOCK IN ENGLAND AND SCOTLAND.—A sale of Angus polled, or hornless cattle, lately took place in Scotland. Cows brought from $100 to $125. Two-year old heifers nearly $100 each; yearling heifers $80, and calves $50 to $60. They belonged to Mr. Fullerton, of Angus-shire.

Several sales of Short Horns have lately taken place. The sale of Mr. Jonas Whitaker, of Burley, was well attended, and good prices were obtained. The bull Buchan Hero, which obtained the first prize at the Highland Agricultural Show two years ago, was knocked down for 350 guineas to Sir Charles Tempest. The Earl of Buchan, a yearling bull by Buchan Hero, fetched 200*l*. He was bought for the King of the French. The cows and heifers varied in price from 150*l* to 25*l*. The stock, consisting of 79 bulls, cows, heifers, &c., were shown in excellent condition; and the prices they realized afford sufficient proof of the estimation they held in public opinion. The first 33 lots (cows) made 1,452*l*: the heifers and heifer calves, 1,531*l* 19*s*; and the bulls, 1,114*l*; in all, 4,098*l* 3*s*—or an average of 51*l* 17s each.

At Mr. Yorke's sale at Thrapstone, the whole herd of cows, heifers, and heifer-calves, averaged nearly 35*l* each, and the young bulls 27*l* each.

Sheep.—At a late sale of Cheviot rams belonging to the Messrs. Aitchison, animals brought from 4*l* to 14*l* per head.

At two sales of Leicesters, Mr. Bentley's and Mr. Watkins', the average prices obtained were 11*l* to 12*l* each.

Mr. Bryant's South Downs, 2,000 sheep and 400 lambs brought, at auction, 3,600*l*.

At the sale of Mr. J Elman's South Downs, the prices obtained for ewes were from 30*s* to 5*l*.

A ram exhibited at the ram-show of Jno. Kirkham, Esq., of Hagnaby, measured in girth 6 feet 8¼ inches, and in length 5 feet 4 inches. Some of the yearlings weighed 40 lbs. per quarter.

HER MAJESTY'S AVIARY AT WINDSOR.—INTERESTING FACT TO NATURALISTS.—The following singular and rare (if not unique) occurrence has just taken place at the Royal aviary in the Home Park, at Windsor. It having been deemed advisable by Mr. Walters, the superintendent of her Majesty's aviaary, in order to improve the breed of the genuine Dorking fowl, that it should be crossed with that of the Cochin China fowl, the necessary arrangements were made for that purpose. A Dorking hen, which had roosted for some time past with the fowls from China, has recently been in the habit of laying twice, and sometimes thrice a week, eggs containing double or two distinct yolks. Mr. Walters, determining to try the experiment of attempting to hatch one of these double yolked eggs, placed it, with several other eggs, under the hen. The result was that two chickens were produced from this single egg; one is a cock bird of the pure Cochin China breed, and the other is a hen chick of the Dorking species, both of which are now five days old and in good health. This is a circumstance, as we are informed, unprecedented in the annals of natural history.

URINE.—It is calculated that a cow produces 15,000 lbs. of urine per year, which by putrefaction in the tanks without mixing with water, loses 162 lbs. of ammonia; this might be converted into sulphate of ammonia, by adding 373 lbs. of sulphuric acid at 12*s*. per cwt., and would produce 4½ cwt. of sulphate of ammonia worth 25*s*. per cwt., equal to 5*l*. 12*s*. per annum.

PRESERVATION OF IRON.—As iron enters so entensively into the constuction of nearly all the implements of agriculture, as well as almost every tool used in the arts, the preservation of the metal from the injurious effects of rust, or corrosion in water, has for a long time received the attention of scientific and practical men. It was found by experience, that the ordinary paints and varnishes, gave only a temporary preservation, and when once the paint began to decay, it assisted rather than retarded the progress of decay. In the 10th volume of the Reports of the British Association, it is stated that by the direction of the Association, Dr. Mallett of Dublin, has superintended a series of experiments, in which every kind of paint, oil, and varnish, was applied to every kind of iron, immersed in various kinds of running water, for two years, the results of which prove that coal tar boiled, and laid on the iron while hot, has a very decided advantage over all other preparations. This discovery is of much consequence, as iron vessels are so rapidly and extensively coming into use.

DISEASE IN CATTLE.—There is at present a deadly disorder raging among the cattle, which carries them off in a very short time; nor is this confined to a particular district—it appears to be spreading in every direction. We can state, from good authority, that a farmer in the vicinity of Glammis lately sold two cattle to a dealer, who paid for them, and was to remove them within a given time. By the time he came to lift them, they were both dead. Three of the same farmer's cattle, and two of his calves, died also. We have heard of a farmer in another quarter, who, in the course of nine nights, lost nine of his cattle; and, within the town, some of the cow-feeders have sustained heavy losses.—*Perthshire Constitutional.*

STATE FAIR—SUPPLEMENTARY NOTICES.

In our last, we spoke of a horse-rake with iron teeth, and having lost the card were unable to give correctly the name of the manufacturer. We were under the impression that it was made by Wm. B. Stoddard, Cayuga county. We find we were mistaken. This rake was patented by DAVID DEWEY, and is now manufactured by Z. DEWEY, East Poultney, Vermont. It is called the "*Patent Spring-tooth Horse Rake*"—has been in use five or six years, and is well recommended by those who have used it.

CLOVER MACHINE.—A machine for getting out clover seed, exhibited by H. BALDWIN, of Washington, Litchfield county, Connecticut; appears to be excellent, is well recommended by those who have tried it, and received the first premium of the American Institute, in 1840.

COAL TAR.—Some bricks coated with this substance, were exhibited. It is said to be the cheapest and best black paint that can be used for out buildings, fences, &c. Bricks soaked in it are said to be impervious to water. It is for sale at $2.50 per barrel, by CHESTER CHILDS, 139 Maiden-lane, New-York.

IMPERIAL AND POTATOE OATS—the former weighing 42 pounds, and the latter 40 pounds to the bushel, were presented by GEORGE NESBITT, Stamford, Delaware co.

AYRSHIRE COW.—Mr. ELLISON, of Newburgh, exhibited, a superior Ayrshire Cow, which took the first premium. We had not the pleasure of seeing her, or she would have been noticed before.

EGYPTIAN CORN, WHEAT, &C.—Mr. L. Durand, of Derby, Ct., exhibited specimens of Egyptian corn, Egyptian wheat, and Durand corn.

SOCIAL MEETINGS.—For several evenings during the exhibition, social parties were held at the residence of Gen. DAVIES, whose elegant mansion was most cordially opened for that purpose, and an opportunity thus furnished for forming acquaintances, and enjoying the most agreeable social intercourse.

CONDENSED COMMUNICATIONS.

VINEYARD AND NURSERY AT BRINKLEYVILLE, N. C.—We have a long communication from the esteemed SIDNEY WELLER, P. M., at Brinkleyville, detailing his experience in the growth of fruit trees and vines, at the South, in which he states that he has for fourteen years, as an incidental business, cultivated the vine—at first, with but poor success, from want of experience and adopting foreign vines and foreign modes of culture—but latterly, having adopted native vines and an "American system" of culture, he has succeeded to his entire satisfaction. He has found the following varieties of the grape to succeed well. The Scuppernong, (ranks first south of lat. 37½ deg. but of no superior excellence north of that,) Norton's Virginia Seedling, good every where so far as he has heard, Weller's Halifax, Vine Arbor, &c. The Catawba, Isabella, Herbemont's Madeira, &c., have not done as well with him. The Elsinburgh proves to be a delicious fruit, much admired on account of its fine flavor and freedom from pulp. He has not tested it for wine. From several of his Scuppernong vines, he has made from half a barrel to a barrel each of wine. One of Norton's Seedlings, five years in culture, produced 2¾ bushels of grapes and 8 gallons juice. He says 800 gallons wine per acre is considered a capital yield in Europe, but from his experience, he thinks 2,000 gallons per acre, by good culture, can be realized in North Carolina. His culture consists in keeping the ground clear of grass and weeds, the year round, so that all the leaves and litter from the vines can be incorporated with the soil by scarifying it when needful with a harrow or cultivator. In some instances however, instead of adopting this course, he covers the ground several inches deep with pine leaves or other litter, which, renewed once in two years, keeps down all extraneous growth, and saves the labor of annually working the ground. After a vineyard is well under way, no other manure is necessary. He has made this season, 15 barrels of wine, and is just commencing on his Scuppernong vines, which constitute his principal crop, and from which he expects to increase the amount to forty barrels.

FRUIT TREES.—Mr. Weller says that he finds some varieties of superior excellence at the north, of no profit with him. The Newtown pippin, (and other northern winter fruit,) is subject to rotting on the tree, and ripens too early for winter keeping. The celebrated winter Bellflower is a fall apple with him. The Sine-qua-non apple, the Bergamot pear, the red Magdalene peach, and the Bolmar or Washington plum, have proved as good with him as at the north. For winter apples, those peculiar to the south only will keep well, such as the Salmon, Gully, and Haul, Barrow, and other seedlings. As a summer fruit with him, he says there is none superior to the common southern horse apple. He thinks November the best season for transplanting fruit trees at the south.

IMPROVED FARMING IN VIRGINIA.—Mr. H. R. ROBEY, near Fredericksburg, Va., gives us the following favorable account of the effect of agricultural papers in improving the husbandry of his neighborhood: "When I commenced farming, I determined to try the new system of husbandry, because I saw the old plan would not do; the farmers were all going backwards, or getting poorer every year; my new neighbors laughed at me, when they saw me occupying so much of my time in hauling mud and sods from the swamps to put in my manure pile, and asked where I got that notion from. My reply was, from the Cultivator. They laughed still more, and called me the book farmer—said I would soon find out my folly, and go back to the good old custom, as they call it. Many of those men have acknowledged since, that I have been pursuing the right plan. I have now eight barrels of corn growing, where six years ago one barrel could not be grown; and all my information has been derived from agricultural papers. Some of my neighbors, for two or three years past, have been taking the Cultivator, and you can perceive an improvement upon their farms already. They are now not content to put up with the bare necessaries of life. A spirit of improvement seems to have taken hold of them; they begin to cultivate improved varieties of fruit for market and for their families; thus adding profit and pleasure, where neither could be found before they began to read agricultural papers."

BLACK SEA WHEAT.—In our March number, page 75, we published a communication from CLARK RICH, Esq. on the subject of Black-sea wheat. We lately received another article from the same gentleman, in which he informs us that this kind of wheat continues to maintain its superiority over other kinds, for that section of country. It is a spring-wheat. Its distinguishing excellencies are, hardiness, freedom from rust and other diseases, and generally producing a better yield, especially on unfavorable soils and in unfavorable seasons, than other varieties. There is a white, and a red-chaff kind. The white-chaff is said to yield as well, but the millers prefer the red-chaff, as giving better flour. It is said not to make as nice looking flour as good Tea-wheat, or as some good kinds of winter-wheat; but since the millers have found how to grind it, the flour is well liked. This wheat has been much disseminated for a few years past, and wherever spring-wheat is cultivated, has been much esteemed. Mr. Rich says, "it is believed that this wheat will yield better than rye, even where rye has heretofore been considered the safest crop." Mr. Rich informs us that prime Black-sea wheat can be delivered at the landing, Shoreham, Vt., at $1.12 per bushel—and procured of the farmers for $1.00 per bushel.

DISEASE IN THE STOMACH OF CATTLE.—Mr. J. DEVEREUX, of Raleigh, North Carolina, wishes some information in regard to a disease by which he lately lost a valuable Devon bull. A *post mortem* examination showed the third stomach or manifolds, "crowded with food until it was as hard as a pressed cotton-bale." In relation to diseases of this organ, Mr. Youatt says—"it will always be proper to bleed, in order to diminish any existing fever, or to prevent the occurrence of that which continued disease of this important stomach would be likely to produce. To this should follow a dose of physic, in order to evacuate the intestines beyond the place of obstruction, and by its action on them, possibly to recall this viscus also to the discharge of its healthy function. The Epsom salts, with half the usual quantity of ginger, will form the best purgative; and it should be administered either by means of a small horn, or the pipe of the stomach-pump introduced half way down the gullet, and the liquid very slowly pumped in. By this cautious method of proceeding, the pillars of the œsophagean canal will probably not be forced open, and the liquid will flow on through the passage still partially open at the bottom of the manyplus, and thence into the abomasum."

It may not be improper to remark that the manifold, as it is called, is the *third* stomach, and not, as our correspondent supposes, the *first* stomach. We are unable to inform Mr. Devereux the probable price of a Devon bull-calf. In answer to the inquiry for the names of breeders of Devon cattle, we would mention Messrs. George Patterson, and John P. E. Stanley, of Maryland, Mr. Wm. Garbutt, of Wheatland, and Mr. L. F. Allen, of Buffalo, N. Y., and Mr. Hurlburt of Connecticut.

GLANDRRS.—Mr. C. B. CLARK, of Monroe, Conn., wishes some more particular information in relation to the cure of glanders by tobacco, as mentioned by Mr. J. B. Cook, in our July number. Mr. Clark says, "if your correspondent would state how much of the decoction of tobacco was given at a dose, the manner of giving it, and the subsequent treatment, a subscriber would be amply repaid for the expense of the Cultivator, especially if a cure was effected."

LARCHES.—In relation to our inquiry whether larch, or tamarack trees will flourish on dry soils, "A CONSTANT READER," at Burlington, Vt., informs us that he has often seen them "in fine condition on high and dry localities, the soil of which was pure sand."

BONE MILLS.—A correspondent wishes to obtain a machine for grinding or crushing bones. We shall be greatly obliged if any of our friends can inform us where one can be procured—its price, and the power necessary to drive it.

LAMENESS OF A HORSE—SPLINTS.

Mr. James M. Tower of Waterville, asks for information relative to what are called splints in horses. We handed his letter to Dr. Wright, veterinary surgeon of this city, who has favored us with the following:

Mr. Tucker—In answer to your correspondent, Mr. Mr. Tower, I would request him to examine the bones of the fore leg of a horse. He will there find, placed immediately behind the large metacarpal or shank bone, two smaller ones, which adhere to the shank bone by a cartilago-ligamentus substance. These two bones form a part of the knee joint, and give firmness, support and elasticity to the limb. This adhesive substance is liable to take inflammation from concussion or straining the part; it then becomes absorbed, and bony matter is thrown out between the bones, which will sometimes grow to the size of half a hen's egg. These osseous tumors are called splints. In slight cases the treatment is simple—slight blisters, repeated, or the iodine ointment, mixed equal parts with Ung. Hydr.; or the Ung. Hydrarge, 2 oz. with one drachm Hiodrate of Potass, rubbed on the part. The last operation for this disease is called subcutaneous periostiotomy, but is seldom necessary.

Geo. Wright, M. R. V. C.

We add the following from Youatt's Treatise on the Horse:

"When the splint is forming, the horse is frequently lame. The periosteum or membrane covering the bone is painfully stretched; but when this membrane has accommodated itself to the tumor that extended it, the lameness subsides and altogether disappears, unless the splint be in a situation in which it interferes with the action of some tendon or ligament, or in the immediate neighborhood of a joint. Pressing upon a ligament or tendon, it may cause inflammation of those substances; or, being close to a joint, it may interfere with its action. Splints, then, do not necessarily cause unsoundness, and may not lessen in the slightest degree the action or value of the horse. All depends on their situation.

"The treatment of splints, if it be worth while to meddle with them, is exceedingly simple. The hair should be closely shaved off round the tumor; a little strong mercurial ointment rubbed in for two days; and this should be followed by an active blister. If the splint be of recent formation, it will usually yield to this, or to a second blister. Should it resist these applications, it can rarely be advisable to cauterize the part, unless the tumor interferes materially with the action of the suspensory ligament; for it not unfrequently happens, that, although the splint may have apparently resisted this treatment, it will afterwards, and at no great distance of time, begin rapidly to lessen, and quite disappear."

RENSSELAER INSTITUTE.

We would call attention to the advertisement of the Rensselaer Institute, which will be found in this number. Perhaps no school in the country has enjoyed a more extensive or deserved reputation than this, for imparting a truly valuable course of instruction. Among those eminent citizens of this and other states, who have, within a few years, by the practical application of the principles of science, rendered important benefits to the country, none have been more distinguished than several of the graduates of this institution.

The following extract from an article written by a former graduate of this school, and now well known and esteemed as a member of the geological corps of the state of New-York, shows the estimation in which this school is held by those who are competent to judge of its merits. Speaking of the advantages of the course of instruction here pursued, he says—

"In regard to the success of the mode of instruction practiced in the Rensselaer school, the writer can speak from the experience of five years in that institution as pupil and teacher—believing it to be the most successful method of imparting instruction yet devised, and were the plan so extended as to bring within its scope all the subjects usually taught in our colleges and academies as well as the natural sciences and practical mathematics, I am confident that a student would acquire at least twice the amount of knowledge in the same time that he now usually devotes. The acquirement is not alone the object attained, for when he has obtained knowledge, he can make use of it, for he learns to impart knowledge at the same time that he is acquiring.

"The student is made at once a teacher; his recitation is never conducted by question and answer, but it consists of an extemporaneous dissertation or lecture, to the teacher present and his associate pupils. He has previously studied the subject, with experiments, specimens, books, and the aid of his teacher; he has made it his own as it were, so far as time and means will permit, and in his lecture, he gives his own language to express his ideas and the amount of knowledge he has acquired. The pupil is thus led to feel an interest in the subject, and it at once acquires an importance in his view, which mere study and recitation can never give it. He feels his deficiencies when he is to instruct others, and he is ambitious to supply them."

Through the liberality of the Corporation and citizens of Troy in furnishing them with buildings and grounds, and of the family of the late Hon. Stephen Van Rensselaer in endowing the Institute, the Trustees have been enabled, notwithstanding the practical, and for that reason more expensive, nature of the pursued studies, to reduce the fees for tuition very considerably, thus rendering the advantages of the Institute more easily available to all.

RENSSELAER COUNTY FAIR.

The exhibition of this society took place at Troy on the 2d and 3d days of October. The display of live stock was not, we think, considered equal to that of some former years. There were some good animals shown—particularly the *Cattle* of Mr. Vail—several of which, viz. "Meteor," "Symmetry," and "Victoria," received premiums at the State Fair at Poughkeepsie. There was also an imported Durham cow called "Splendor," said to be owned by Mrs. Sampson, of Brunswick. Though low in flesh, her form is generally good, and she is represented as a superior milker. Isaac Welch, Brunswick, offered a good *grade* heifer two years old, and there was a pair of very pretty native heifers (though they might be taken for half Devons) shown by Abm. Nash, Troy. Of oxen, several pairs were noticed, belonging to Pliny Griswold, East Nassau, Roswell G. Pierce, and Joshua B. Mason, Stephentown. Of *Sheep*, there were some good-bodied, medium wooled Merinoes, shown by Nathan Brownell—the ewes having yielded, as was stated by the owner, from 5 to 6 lbs. washed wool per head last season. Two bucks by B. Ketchum, Pittstown, sheared last season, the one five, the other eight pounds. The buck "Consul," purchased of Mr. Sanford, of Orwell, Vermont, by Mr. Martin Springer, was on the ground. A superior Saxon buck from the Grove stock, one year old, was shown by Myron Rogers, of Hoosick—also a very superior Merino buck lamb, 5 months old, purchased of Mr. Blakeslee of Connecticut, by R. H. Streeter, of Berlin. Mr. Streeter had also a good Cotswold buck, which had 12 lbs. wool at last shearing, and a Lincolnshire buck, the latter purchased of Mr. Clift of Putnam county. There were five good ewes, apparently a cross of the Cotswold and South Down, presented by Wynant Younghans, Sand-Lake. Mr. Kip and Mr. Greene, of Pittstown, showed good Bakewell bucks. Of *Swine*, there were a few good Berkshire, and a white boar belonging to Edward Pearl, Troy. The show of *manufactured articles* was good, and highly creditable to the county. We noticed many good Agricultural and Horticultural *Implements*, from Messrs. Mowry & Vail, Troy; and among them several sizes of Langdon's plow cultivators. Of *Household* manufactures, there was a very good display. Of *Fruits*, there were fine specimens of apples, pears, and grapes, from Geo. Vail, Troy, and John Filkins, Lansingburgh. Very superior samples of White Sweet-water, and Winne grapes, were presented by Miss Sally Gale, Troy. The Address was by Hon. R D. Davis of Poughkeepsie.

FULL BLOOD MERINO SHEEP.

In our October number, we spoke of some sheep exhibited at Poughkeepsie, by Mr. Jacob N. Blakeslee, of Watertown, Litchfield county, Conn., and by Mr. Stephen Atwood of Woodbury, in the same county. We stated that these sheep were represented as being entirely of the blood imported by Col. Humphrey in 1802. This statement which was made without reference to some papers given us by Mr. Blakeslee, and which were then mislaid, was not quite correct, It is not claimed that the sheep are *entirely* descended from the Humphrey importation, as will be seen by the account furnished us by Mr. Blakeslee, which we give below.

In the April number of the Cultivator, we published a communication from the Hon. Wm. Jarvis, of Weathersfield, Vt., in which he expresses doubts whether there are any full blood Merinos in the country, excepting some which have been derived from his flock. That in this particular Mr. Jarvis was mistaken, will appear from the statements of Mr. Sanford in the September number. In reference to the communication of Mr. Jarvis, Mr. Blakeslee says—"He seems to doubt that there is any pure blooded Merino sheep in the country at the present time, but what are in his possession. The duty which I owe myself and my neighbors, requires me to give a description of some pure bloods, that are the offspring of some of the first that ever came into the United States, brought into the country by David Humphrey in 1802, which were a present to his wife by her father, as she was a Spanish lady. After a few years, two pairs of them were purchased by Daniel Bacon, of Woodbury, Litchfield county. They were kept in their pure state till 1811. There was then an importation of the Guadaloupe sheep by a company formed in Litchfield county; John De Forest, supercargo. They arrived at New-Haven, and were sold at auction, Jan. 17, 1811. There was one full blooded Escurial buck, which was purchased by Daniel Bacon at $275, and was crossed upon those sheep that came by the way of Mrs. Humphrey. He continued this cross till 1816 or 1817, when he sold his Escurial buck to William K. Lampson for $1,130. He kept his sheep pure till the introduction of Saxony sheep. He then sold the remainder of his flock to Daniel Martin. I began a flock of sheep in 1815, that were imported by Peck & Atwater, New-Haven. A part of them were the Negretti and a part Montarco. I let them run together till 1823. I then procured the use of a buck for three seasons, bred by Daniel Bacon from his Escurial buck. The average weight of the fleeces of the stock from this buck, was four pounds, and the wool brought me ten cents in a pound more than the original stock. In 1828 I purchased a buck that was raised by Daniel Bacon. From that time down to the present, I have kept that blood pure; this flock is now a cross of three sorts of Spanish sheep, and perfectly clear from native or Saxony blood. My farm is not a healthy farm for sheep, and of course they are a little under size. They are a full, round, handsome bodied sheep, with shortish legs and a very round neck. They have very heavy fleeces for their size. Their wool is a long staple, a great deal of crimp, and very compact at the outer end. They have generally wool about their face and on their legs down to their feet. After taking great pains to wash them, the average weight of their fleeces this season was three pounds and a half, and there are very few flocks of Saxony sheep any finer. Mr. Samuel Lawrence of Lowell, who has had this wool for four seasons past, has given his opinion that there is no Merino wool that compares with it. This improvement has been made by a cross of the different breeds. I am decidedly of the opinion that there is no full blood animal equal to a cross; the reason I give is that there is no perfect animal on the face of this earth: where an animal is imperfect, you can never remedy the defect by the use of an animal that has the same defect. The Saxony sheep are defective in the quantity of wool; in our cold climate the outer end becomes dead and destitute of felting properties. The Spanish breeds spoken of are free from both these defects, and wherever those bucks have been crossed upon high blood Saxons, there has been an addition of 8 to 24 ounces to each fleece, and whenever it has been through the process of stapling, it has brought at least 5 cents more on a pound. I have often heard the question asked, why new wool would not felt like wool that had lain a year. I believe if the wool growers had taken as much pains to improve upon the Merino as they have upon the Saxony, that question never would have been asked. Almost the whole of the fine goods that are now made are made from Saxony wool that has a dead end, very tender when new, and destitute of felting properties; after lying in the native oil one year it becomes so rotten that it wastes in the machinery before it comes to the felting process. As there is more native oil in the fine Merino wool, it has been the cause of some complaint by our manufacturers, that it wastes too much in cleansing. If they would weigh both kinds of wool in the fleece, and then weigh the goods when finished, they would find the Saxony wool would waste as much as the Merino."

Mr. Blakeslee's sheep are compact and symmetrical, answering the description given of the Gaudaloupe, which are said to have the most perfect form of any of the Merino varieties. (Library of Useful Knowledge—"SHEEP," p. 156.)

THE ARTICHOKE.

Several trials which we have known made with this root, indicate that it is one of the most valuable for stock, which can be cultivated. A few years ago, a gentleman of our acquaintance planted a small patch of rich ground with them. The produce was at the rate of 1,200 bushels per acre. They were principally harvested by hogs, which were turned in and allowed to root them up as their appetite prompted. They gained well, with no other food, while the artichokes lasted. A great advantage of this root is, that it will lie in the ground without injury all winter.

Mr. Thomas Noble, of Massillon, gave us a brief account of a trial with artichokes, made by him the past season. In April, 1843, he planted two acres with this vegetable. The ground was of medium quality. The artichokes were planted in rows 2½ to 3 feet apart—using a little more seed than is commonly used in planting potatoes. As soon as the frost was out of the ground last spring, (1844,) the digging of them was begun and continued as the stock required. The produce of the two acres was 1500 bushels. They were fed principally to sheep, though some were given to cattle, horses and hogs. All animals ate them well, seeming to prefer them to turneps. While the sheep were being fed with them, they were pastured on growing wheat and clover. The shepherd thought the wheat and clover was sufficient for them, as there was a full "bite," and he accordingly discontinued the artichokes. The ewes "fell off" in their milk, and the lambs soon showed that they were not doing so well. The artichokes were again given, and they soon did as well as ever.

Mr. Noble also used the *tops* for fodder. He cut them in October, just before frost came, dried and housed them. They were fed to the stock in winter, and were evidently preferred to corn fodder.

Mr. N. is so well pleased with artichokes, that he is raising them this year on a larger scale. They require but little cultivation; it being only necessary to keep the ground clear of weeds till the artichokes get a good start.

Mr. T. M. Johnson of Greensboro', Alabama, lately informed us, that he is this year growing 30 acres of artichokes. He considers them the most profitable vegetable he can raise. In that climate they can be dug any time in the winter.

There are several varieties of artichokes, but that called the Jerusalem artichoke (Helianthus tuberosus) is considered best. From the fibres of the tops or stems, a cordage is sometimes manufactured in some parts of Europe.

Two tea-spoons full of finely powdered charcoal, (says the N. Y. Herald,) drank in a half tumbler of water, will, in less than fifteen minutes, give relief to the sick headache, when caused, as in most cases it is, by superabundance of acid on the stomach.

CATTLE SHOW AT WORCESTER.

We had the pleasure of attending the Cattle Show of the Massachusetts State Society for the Promotion of Agriculture, held at Worcester on the 9th and 10th of last month. The Fair of the Worcester County Ag. Society was held on the preceding day, and was, we were told, in every respect superior to that of the State Society. The premiums of the State Society being restricted to animals which had previously taken prizes at the County Shows, the competition was confined to a limited number, and no inducements were offered to the owners of other animals to bring them to the exhibition. It seemed to be the general opinion, so far as we could judge, that the restriction of prizes to premium cattle, ought to be abolished for the future.

There were some good bulls. The best were principally Durhams. Elias Ayres, of Barre, showed two, both bred by C. H. Hall, of Harlem, N. Y. One of them was purchased of Mr. Mabbett, at our late show at Poughkeepsie. He is lame, and in rather bad condition. The other is a good five year old bull, weighing upwards of 2,500 pounds. The Messrs. Lathrop of South Hadley, had a three year old bull on the ground, got by Yorkshireman belonging to Joseph Cope, of Chester Co., Pa., and bred by Mr. Bates, Kirkleavington, England. The dam of the Messrs. Lathrop's bull, was from Mr. F. Rotch's stock. The bull has some very good points, and he took the first premium. There was also a large bodied, well made Durham bull, which we understood was bred by Henry Watson, of Connecticut. John B. Burt, of Sheffield, Berkshire county, had a pretty four year old bull on the ground, "three-quarters Durham, and *one-quarter Holderness.*" In symmetry and handling, he was equal to any bull on the ground. He was got by a bull imported by Mr. Hickock, of Harlem. We did not see a single good bull calf on the ground, and but one good heifer calf, and that was a cross of Col. Jaques' Creampot breed and the Ayrshire. She belonged to Henry Dodge, Sutton.

There was a fine cow presented for exhibition only, by Charles Allen, Worcester. She was half Durnam—a beautiful roan, and her appearance, both in respect to shape, thrift, and dairy properties, was very much superior to any other cow at the show.

Moses Ayres, New Braintree, showed a cow, which, on grass-feed only, gave from the 10th to the 20th of June, ten days, *twenty-five* pounds of butter, or 2½ pounds per day. She was also half Durham.

George Randall, of New Bedford, showed a bull and several cows and heifers of the Ayrshire breed, and one cow, a cross of the Ayrshire and Alderney. The cows have generally the appearance of good milkers—among them was a young cow, which we understood had been lately imported from Scotland, whose appearance was *very* fine. In the *forehand*, she was unexceptionably beautiful. Her head and eye were fine, her horns thin, waxy, and almost transparent; and her skin yellow and rich. Taking her altogether, she might be pronounced a very superior cow. There was a five year old Ayrshire bull on the ground, which Mr. J. P. Cushing, of Watertown, presented to the Worcester County Ag. Society. But we do not think either of the Ayrshire bulls here, were equal to the one sent from Canada to the Poughkeepsie Fair, by Mr. Archibald.

The sheep were few in number, and with the exception of two or three, of no particular excellence. There were several called *native*. They were large framed, raw-boned animals, not at all calculated to afford profit, either as fattening or wool bearing sheep.

A buck and ewe imported from Africa by Mr. Lowell, of Waltham, attracted attention as a curiosity. Their color is brown, or snuff color, and their wool long and very coarse and harsh. We do not see that they are recommended by any valuable qualities.

The show of *swine* was good—indeed, we think it was the best show of the kind we ever witnessed. We saw but one full blood Berkshire in the pens, and the cross-bred Berkshires were not numerous. The hogs of all ages from the State Asylum for the Insane, were superior. They are commonly called the "Hospital breed." They have often taken premiums here. The basis of this stock is the Bedford breed, brought to this State many years ago by the late Hon. Timothy Pickering. Their origin in this country was some pigs sent by the Duke of Bedford as a present to Gen. Washington. Dr. Oliver Fiske, late of Worcester, had them in great perfection for several years. We have bred this stock, and found them very profitable. Those which Dr. Woodward now has at the Hospital, seem to have been crossed with Mackay, which has given them more size, though they still retain the symmetry and principal characteristics of the original Bedfords. The hospital hogs weigh at 8 months old, about 250 lbs.—at 12 months old, 300 lbs—and at 18 months old, 400 to 500 lbs. Two breeding sows exhibited by Dr. Woodward, were the most perfect animals of their kind we ever saw. Martin R. Wheeler, Westborough, showed a sow and several fine young boars of this stock.

Mr. Stickney, of Boston, showed a boar and several sows of the Suffolk breed, just imported from England. They appear to be a very thrifty, thin-skinned breed. Their heads are not quite so good as those of some hogs, though Mr. Stickney informed us that some of this breed which he before imported, are quite perfect in this respect. They have very broad chests and wide backs.

There were some good specimens of fat cattle. A pair half Durham, 6 years old, weighing 5,210 lbs., belonging to John Marland, Andover, received the first premium. There were several fine medium sized red oxen exhibited. The fat cattle here, in point of symmetry and fineness of quality, were, we should say, generally superior to those at Poughkeepsie.

The *working* cattle were good, as a matter of *course*, though the number was less than might have been expected. The restrictive rule before mentioned, undoubtedly operated in this case. The discipline shown by nearly all the cattle in managing a loaded cart at a hill, was truly admirable. The oxen were less in size than we have before seen at the Mass. State Society's Shows at Brighton, and at the County Show in this place. The load, 40 cwt., was heavy enough for the weight of the cattle, they weighing from 2,300 to 2,900 lbs. the yoke. They took this load up a hill steadily and easily, carried it down again to the foot, and then backed it straight up the steepest part, a good distance. Their faculty of backing is remarkable. They put their bodies close to the tongue, to which they keep as closely as if they were tied there; hold up their heads, and throw their whole weight and strength backwards. The best teamsters make but little use of the whip, and speak to them only in a moderate tone of voice. The discipline of the cattle is commenced at a very early age—almost as soon as the calves are able to walk with a miniature yoke on their necks. The *ox-mind* at this early age, is peculiarly susceptible of *impressions*, and the animals consequently acquire a degree of knowledge perfectly astonishing to those who have only seen them *mauled* about with a club, or *strapped down* with a bean-pole, having seven or eight feet of green hide fastened to one end of it. Some of the cattle which are facetiously said to have *graduated* at the *ox-university* of Sutton, show a degree of intelligence which really seems greater than that possessed by some of the *drivers* of oxen in some sections of the country. Even the steers, from three years old down to six months old calves, showed as perfect discipline, and yielded as ready and prompt obedience to the word of their *commanders*, as most of our military companies. There was a pair of yearling steers exhibited here by Nathaniel Dodge, Sutton, which were superior to any we have ever before seen. Their weight was 2,290 pounds. Their form was almost unexceptionable, and they were so completely matched in color and other respects, even to the bend of the horns, that it was almost impossible to tell them apart; and the excellence of their discipline was as remarkable as their appearance in other respects. A little boy, *only eight years old*, whose name was Elijah R. Carpenter, (son of Simon Carpenter, of Charlton,) exhibited a pair of steer calves 6 months old. Mr. Carpenter assured the committee that this little boy had had the entire management of these steers. He drove them up and down the street, and made them perform the customary evolutions of oxen, with almost as much exactness as was shown by any other cattle.

In regard to the *trial of plows*, which we had expected would be one of the most interesting parts of the exhibition, there was much disappointment. Only two competitors appeared. Neither Messrs. Ruggles, Nourse & Mason, or Messrs. Prouty & Mears entered the lists at all. Consequently we had not the satisfaction which we had hoped to have, of seeing the celebrated *Eagle* and *Centre-draught* plows, tried in competition with each other.

A subsoil plow with a double flange, was offered by Charles Howard, Hingham, which was much admired. Working in the furrow, behind another plow, it pulverized the ground finely to the depth of ten inches.

The show of *implements* was really splendid. To witness this single department of the exhibition was worth a journey of hundreds of miles. Among the implements particularly worthy of notice, was a *butter-worker*, presented by Amherst Hawes, from the farm of Col. J. W. Lincoln, Worcester. It was a kind of brake. A marble slab placed on a table, with a slight declivity to let the buttermilk run off, formed the place for working the butter. A fluted roller, to which was attached a handle three or four feet long, fastened at the lower end to a swivel, constituted the power for working the butter, which was done by passing the roller backwards and forwards over it, applying as much pressure by means of the hand, as is required. In connection with this, was shown a *butter-stamp*, by C. E. Miles, Shrewsbury. A round hole, say 3 inches in diameter, was cut into a block of marble six or seven inches thick. The butter is put into this hole in any desired thickness, and the stamp then pressed on it. On withdrawing the stamp, the butter adheres to it, and is taken off, and the stamp used as before. There was an improved churn shown by E. F. Dixie, Worcester, and a vegetable cutter of superior construction by Thomas Wheeler, Leominster. Messrs. Ruggles, Nourse & Mason, showed *twenty-six* different patterns of plows, besides a multitude of other implements, none of which, however, were entered for premium.

The specimens of agricultural and horticultural products, were numerous and excellent. Among them a *seven yeurs* pumpkin, which beat Mrs. Vassar's shown at Poughkeepsie, by six pounds—the one at Worcester weighing 132 pounds. The horticultural exhibition, considering the lateness of the season, was very fine. The apples were excellent, and there was a very respectable show of the finest pears of the season, as well as grapes.

On Wednesday evening, a meeting was held at the Town-Hall in Worcester, at which the Hon. Josiah Quincy, Jr. presided. The company was much interested by remarks from Ex-Governor Lincoln, Gov. Briggs, Mr. Quincy, Mr. Johnson of the New-York delegation, and other gentlemen. At the close of the meeting, the members of the Mass. State Ag. Society, with the delegates from the county societies, and delegates from other States, accepted the invitation of Gov. Lincoln to attend an agricultural levee at his house, where a most splendid collation was provided.

On Thursday, the Society, with invited guests, had a public dinner, at which Ex-Governor Lincoln presided. Short speeches were made by various gentlemen, appropriate sentiments (drank only in *cold water*,) were given, and the awards of premiums announced by the chairmen of the several committees.

The agreeable social intercourse enjoyed among the people of Massachusetts during this exhibition, both at the public meetings, and at the dwellings of some of the most distinguished citizens, will be remembered with great satisfaction by those who had the pleasure of attending from other States.

Cooking Food for Swiee.—Dr. Lee, in an article on pork making in the last N. G. Farmer, says:—"From some experiments of my own, and considerable research into the published results of the experience of others, I am satisfied that ten bushels of boiled potatoes, thoroughly mixed with the pudding that can be made from three bushels of corn or peas, will make as much pork as twenty bushels of potatoes, and six bushels of corn or peas fed raw."

POWER OF SMELL IN INSECTS.

Every one is aware that in nearly every insect the sense of smell is remarkably acute. This seems to be necessary as a guide to their food; the more requisite as their range of vision, must, in most instances, from the nature of the case, be quite limited. Thus the bee discovers honey at a great distance, and makes her way to it with the greatest certainty. The bee-hunter avails himself of this acuteness of smell, and by exposing honey alone, or burning the comb to more rapidly extend the odor, discovers whether there are any bee-trees, or deposits of honey, in the vicinity. So the ant, that pest of the housewife, is almost sure to discover and lay under contribution the family stores of sweets, unless frequently looked to, or carefully guarded against. The flies, particularly the flesh fly, (*musca carnaria*,) furnish abundant proof of a liberal endowment of this sense, by the facility with which they discover any substances suitable for their food, or a place of deposit for their young. It is commonly said instinct is infallible; but that of the *musca carnaria* is proved to be at fault, when deceived by the carrion like smell of the mushroom, *phallus canis*, it deposits its egg upon it in the belief that it will provide suitable food for its young.

This power or acuteness of smell in insects may be used against them, or as a means of driving them from plants or places where they are numerous or troublesome; for it is well known that while they are attracted by some substances or odors, there are others extremely offensive to them, and which they will, if possible, avoid. Thus most of the essential oils of plants, or the materials that furnish them, are extremely disagreeable to most insects. Camphor, cammomile, tobacco, red cedar, black birch, sulphur, musk, &c., are among the materials offensive to many classes of insects, and may be used successfully against them. Thus the fumigation of plants, or the exposing them to the vapor of tobacco, will speedily expel the green fly or aphides, or destroy them; and the fumes of sulphur will operate as effectually on the red spider, an insect at times very troublesome to the gardener. Professors Henslow and Lindley, both affirm, that the vapor of oil of turpentine is a sudden and total destruction to the wasp which produces so much trouble and mischief in a green house, or conservatory. Bureaus, or book cases, should in part be made of red cedar, as the powerful odor of this wood is very offensive to moths, which attack furs or the binding of books. Russia leather, which derives its smell from a thorough impregnation with the oil and smoke of the black birch, is valuable for the same purpose, and a few shreds of it scattered among books, or in drawers, is one of the best preventives yet known, to the attacks of the paper or book moth. The Orangery of Sir Charles Monck had been for several years much injured by the brown-scale insect, (a variety of the same that attacks apple-trees,) when as an experiment, he suspended among the branches a quantity of cammomile, and syringed others with an infusion of this strong smelling herb. The result was, that his trees were almost entirely freed from the insect, the young scales turning dry and black and falling off. Tanzy we know is a strong repellant to many insects that infest our gardens; and it is very probable that most of the strong scented, or aromatic plants, would be found repulsive if not destructive to some of the insect tribes that harrass and injure the crops of the farmer, gardener, and fruit grower. Experiments on the smell of these depredators might easily be made, and if the result was not satisfactory, they could not be injurious or expensive.

Disappearance of the Curculio.—The New England Farmer, encouraging the cultivation of plums and other fruits, says, the curculio has this year in a great measure disappeared, and asks, "to what cause may we attribute its sudden exit? Was it the severe cold winter which gave them the check?" The exemption of fruits from the attack of the curculio, has been noticed in this vicinity, and an abundant crop of plums has been obtained.

A writer in the Michigan Farmer, recommends buttermilk for the destruction of lice on cattle.

THE MASSACHUSETTS PREMIUM FARM.

In 1843, the Massachusetts State Agricultural Society, awarded a premium of $200 to Mr. Benj. Poore, of West-Newbury, for "the best cultivated farm" within the State. We condense the following from Mr. Poore's account of his farm, as published in the New-England Farmer. The farm is known as the "Indian Hill Farm."

Number of acres.—Exclusive of woodland, salt marsh, &c., there is 121¾ acres, three of which are enclosed as a garden and nursery, and between six and seven acres planted with forest trees. There are six acres of mowing land which have not been drained, because his neighbor, through whose land the drain would have to pass, prefers to keep his meadow in *natural grass*—leaving 86 acres which are about equally divided into upland and meadow; the latter all reclaimed in the most permanent manner, and divided into fields, numbered from 1 to 14, which is found very convenient for reference in the journal always kept on the farm.

Nature of the soil.—The highlands are gravelly loam, resting on a clay pan, and crops are seldom injured by wet or dry weather. Of the meadows, some portion is a strong clay that would make bricks—others rich, black, alluvial soil. These were of no value till drained. It was first fenced to keep off the cattle that they might not get mired in going on it to feed on the coarse wild grass which grew there. It is now so hard that a team may be driven over it without any difficulty. About sixteen years ago, Mr. P. employed a Scotch farmer, whose knowledge and experience in draining, proved of much advantage.

Depth of plowing.—The precise depth is not mentioned, and we are left a little to conjecture *how* deep Mr. Poore means when he says "we always plow deep, and are well satisfied deep plowing never injured *our* lands."

Kinds of crops cultivated.—About 10 acres of Indian corn and potatoes. Corn produces 72 bushels per acre. Mr. P. thinks rye should be sown early, say in August, or late, say in October. Two bushels of rye are sown to the acre. Corn and potatoes are cultivated entirely in drills. The arguments in favor of this mode are, that less manual labor will produce a crop. A double mold board plow is used in digging potatoes. Plowing in autumn is preferred—the earlier the better. The long barn-yard manure is used in a green state, put in the drills where the corn and potatoes are planted. When the crops are removed in autumn, the land is thrown into ridges by the double mold board plow. Spring crops are oats and barley. Wheat was formerly sown, but latter years has not produced well. The manure is chiefly used with the corn and potatoe crop, and not much on laying the land down with small grains and grass, as it tends to produce too rank a growth of straw. If *top-dressings* are used, compost is preferred. The fields are cultivated as near as possible in rotation. Made last year 363 loads, 30 cubic feet to the load, of compost manure.

Number of acres mowed for hay.—Mr. P. mows 86 acres, commencing early in the season, as the horses are kept up all the year, and the oxen at least three quarters of the year—therefore a portion of the grass is used for soiling. Estimating the hay on hand first of August at 500 cubic feet to the ton, at which rate it is often sold, there was on hand 157 tons.

Flooding grass lands.—Twenty acres of Timothy meadow was flowed in the winter of 1842-3. The result was an injury to the grass. The water it is supposed, laid on too long. The experiment will be repeated—letting the water remain on only two or three days at a time.

Oats and barley.—The Scotch two rowed barley, and the Scotch potatoe oat are preferred. Three bushels of oats and 3 to 3½ of barley are sown per acre.

Laying down meadow lands to grass.—After the hay crop is taken off, the land is plowed, laying the furrows flat, and rye and grass seed sown, with a liberal top-dressing, and then rolled. A bushel, and in some cases, a bushel and a half of grass-seed (kind not mentioned) is sown per acre.

Saving and making manure.—Manure is saved in every way that it can be obtained. Compost is made from the parings of the ditches, leaves, meadow-muck, &c. In addition to the ordinary means of saving the manure of the stock, a cistern for saving the urine has been constructed, and is thus described. "It is 13 feet in diameter and 15 feet deep, constructed of stone and cement; into this runs the stale from the stable, ox house, cow house, and all the liquid from the cow yard, the suds and wash from the dwelling; over are the water closets of the dwelling, two in the basement, two on the ground floor, and two in the chamber; these are connected by covered passages to the dwelling; in the second story is a place for putting down loam or any material wished for compost, which we do weekly; back of the building and under the basement, is a convenient place to throw out the compost, which we do semi-annually. There is nothing offensive in the smell, and we think too high an estimate cannot be placed upon this appendage to the farm."

Live stock—The stock kept on the farm, is six oxen, ten cows, and from four to six horses. The cattle are Durhams, "which," says Mr. P., "for *our* farm we think have no equal." The calves are shipped south and west when six months old, except such as are necessary to keep the stock good. The calves are generally put to drink as soon as dropped. Sometimes, when a very fine one is dropped out of season, it is allowed to run with the cow. Mr. P. considers this an expensive mode of rearing calves, but says the prices he has often obtained, fully justify it.

No cheese is made of late years—the milk being sold, except what is wanted for family butter at the house.

Swine.—From six to fifteen, at different seasons, are kept. They are mainly supported by wash from the house and unsaleable vegetables. The manure of the horses and cattle in summer, is thrown into their yards, and they are kept well supplied with turf-parings, sods, young weeds, &c., which are often removed to the compost-heap, and a fresh supply given in return.

Orchards, &c.—There are 347 apple-trees, from which there were formerly made 75 barrels of cider. Recently the trees have been headed down. Of pear, peach, plum, apricot, and cherry-trees, there are 1,200, planted out at different times within the last ten years.

Laborers.—There are three departments. The farmer and three assistants, and two boys—the gardener and one assistant, and the machinist's department, which is composed of one blacksmith, one stone mason and wall builder, one wheel-wright and carpenter. They all keep separate accounts, and when one exchanges time it is repaid the same as if with a neighoor. Since 1826, Mr. P. has had a Scotchman as foreman, and with the exception of one Dutchman and one Welchman, the laborers have all been Scotch, English, or Irish. Foreigners cannot do as much work in one day, as the Americans, but they do more work in one month, and infinitely more in a year. They are not afraid of wet or cold, and having been raised to labor, are content to labor. The foreman being a foreigner, can manage them better. They also prefer him, as they can work as they have been accustomed. Mr. P. says, "having made a rule that when they were deserving to provide better situations for them after they had become accustomed to the climate and manner of farming here, I can at any time, from the neighborhoods of those who have faithfully served me, supply myself, at sixty days notice, with any number of farmers or mechanics, at the old country wages, which do not exceed upon the average £12 per annum for farm servants, or £20 per annum for mechanics. In addition, board, washing, and lodging, if single—and use of cottage and garden, and one quart of milk per day and board themselves, if married. I wish no better men than I obtain at these prices."

Barns—The main barn is 120 feet long and 42 wide. In the basement or cellar, (though mostly above ground) are horse-stables, ox-house, threshing mill, cider press, hay press and vegetable cellars, which are filled by rising hatches in the floor above. There are also two wings 80 feet each, one of which is a cow-house and a wood-house in the basement or cellar—the other a piggery, and over it a carriage-house, work-shop, henery, &c. The barn is devoted to hay and straw, and all the cattle are fed, by putting hay down in the racks. The

cattle are tied by chains. The floor of the cow-house, ox-house and stables, is of paved stone, and gutters cut from stone, lead to the cistern. The entire barn, stables cistern, &c. were erected at an expense of $2,000. The basement is constructed entirely of stone. Split stone is used for door-posts, supports in cellar, &c. The roofs are covered with tin, which Mr. P. says costs in the first instance, one-third more than good shingles; but it has been on eleven years, and shows no signs of rust or decay.

The cow-yard (or barn-yard) is filled with mud, earth, leaves, &c., in the fall, which are put into heaps in spring, when the yard is again filled—the droppings of the cows and manure from the stables in summer, is daily put in with the hogs under cover, and removed to the compost heap every convenient opportunity, when properly worked.

SAVING MANURE.

The effluvium, or gas, which arises from decomposing animal or vegetable substances, though exceedingly disagreeable to our olfactory senses, is the congenial food of growing plants.

Arthur Young said, many years ago, "he who is within scent of a dung-hill, smells that which his crop would have eaten if he would have permitted it." Sir Humphrey Davy demonstrated this. He placed a quantity of fermenting manure in a retort, and ascertained that it gave off a liquid containing a large proportion of salts of ammonia. Seeing this result, he introduced the beak of another retort filled with similar dung, under the roots of some grass in the garden, and "in less than a fortnight, a very distinct effect was produced on the grass upon the spot exposed to the influence of the matter disengaged in fermentation; it grew with much more luxuriance than the grass in any other part of the garden." It is hence obvious that by permitting the escape of the gas evolved during fermentation, the valuable portions of the manure are dissipated in the atmosphere.

"The loss of *gaseous manure*," says Mr. Hannam, in in his excellent essay on the Economy of Waste Manures, "arises from the escape of the carbonic acid and the ammonia, of the vegetable and animal matters in the manure-heap, during the process of fermentation and putrefaction; both of which gases are essential in the nutrition of vegetables. * * * When this evolution of ammonia and carbonic acid takes place under the root of the plant, it is what we want; but when it takes place, as is generally the case, months before the compost is used, the manure is robbed of its most valuable constituents."

"It is worthy of remark," continues Mr. Hannam, "that the richer the manure is in nitrogen, the more serious the loss is; as the more nitrogen a substance contains, the more prone it is to ferment and throw off ammonia." The observation of every farmer will corroborate this; for all have noticed that the richer the manure, the stronger the odor arising from it.

The most effectual means, probably, of preventing this waste of the gaseous portion of manures, would be to apply them to the soil before fermentation takes place. In this case, the gases would be taken up by the growing crop. Stable, or barn-manure, is sometimes deposited in cellars, where, from the low temperature and seclusion from the air, it undergoes little or no change. Thus kept, it retains its original strength, and is much more powerful and enduring in its effects, than that which has undergone decomposition in the open air. But there is often so large a portion of undecayed vegetable fibre, (litter, &c.) in manures, that they cannot be conveniently applied in a green state. Besides, for some crops, the action of green manures is not quick enough; and for other crops, as wheat and other small grains, they tend to produce too great a growth of straw, and increase the liability to rust.

It becomes, then, necessary, under certain circumstances that manures should pass through a state of fermentation before they are applied to the soil, and the question is, how can this object be accomplished without loss?

Reason teaches, and experience proves, that substances may be mixed with manure, which will absorb the gaseous portions as they are generated. *Earth* is a good absorbent. If a dead animal be enveloped in earth before putrefaction commences, and allowed to remain so till the carcass is decomposed, the earth will have absorbed the nauseous fumes occasioned by the decomposing animal matter, and will be found rich in those principles which constitute the food and growth of vegetables. This example teaches that mixing soil with manure, or covering the manure-heap with a layer of soil while undergoing fermentation, will preserve much of its value which would otherwise be lost. There are other substances which are preferable to common soil—such as charcoal, (which it is said will absorb ninety times its own bulk of ammoniacal gas, and thirty-five times its volume of carbonic acid gas,) and peat, or swamp muck. The latter, in many parts of the country, can be had in the greatest abundance, and it is, beyond doubt, one of the best means of augmenting the farmer's stock of valuable manures. In its composition and absorbing power, it much resembles charcoal—being principally the carbonaceous matter of decomposed vegetables. Every farmer who can conveniently obtain peat or muck, would do well to place a layer of it under all his manure-heaps—to mix it with barn or stable manure in forming composts, covering the piles with a coating of it to prevent the waste of the gases, and throwing it liberally into the stalls of cattle and horses, to absorb the urine. Results will show that the labor thus bestowed in the use of swamp muck, will be rewarded a hundred fold.

Other substances are used as *fixers* of ammonia, &c., which act somewhat differently from those above mentioned—such as gypsum, and various kinds of acids. The theory of their action is, that the ammonia, being an alkaline gas, will by combination with any acid, form a neutral salt. Gypsum is a combination of lime aud sulphuric acid. When this is applied to fermenting manure, the sulphuric acid of the gypsum leaves the lime and unites with the ammonia, the acid having a stronger affinity for the ammonia, than for the lime with which it was before combined. Mr. Hannam, in the essay before referred to, recommends that the manure-heap be covered with peat, or some absorbent, and "this coating kept well saturated with sulphuric-acid and water, say a weak mixture of ten gallons of water to one of acid." Mr. Hannam adds, that any other acid which may be obtained at a cheaper rate, will act as well, as the ammonia will combine with any acid. Either the application of gypsum, or the acid solutions mentioned, will soon effect such a *fixture* or combination, that little or no smell can be perceived.

In regard to the use of *salt*, which has been by some recommended as a fixer of ammonia, Mr. Hannam says—"My own observation teaches me to prefer acid to any salt, as it is equally cheap, more easily used, and is, therefore, likely to be more generally efficacious."

"Much increase is by the strength of the ox."—[Prov. xiv. 4

The following in substance, is Dr. Adam Clarke's *just* commentary on this passage of Holy Writ. The ox deserves more consideration than he usually receives, for the reasons here so correctly given: "The ox is the most profitable of all the beasts used in husbandry. Except merely for speed, he is superior in almost every respect to the horse. 1. He is longer lived. 2. Scarcely liable to any disease. 3. He is steady, and always pulls fair in his gears. 4. He lives, fattens, and maintains his strength on what horses will not eat, and therefore is supported at much less cost. 5. His manure is more profitable. And, 6. When he is worn out in his labor, his flesh is good for the nourishment of man, his horns of great utility, and his hide almost invaluable. It might be added, he is almost no expense in shoeing; and his gears are much less expensive than those of the horse. In all large farms, oxen for the common purposes of labor, are greatly to be preferred to horses. Have but patience with this most patient animal, and you will soon find there is much increase by the strength and labor of the ox."

Pick carefully all winter apples for sale and for use, and save all other apples for pigs and other farm stock, for which they will be found very valuable in winter.

PLOWING IN CLOVER.

Among other questions which ought to be, (and may be) decided, is that of the relative advantage of plowing in or pasturing clover. It seems to be taken for granted by many, that plowing in the clover crop is more beneficial to the land, and a more profitable course, than feeding it off by animals. But we do not think this point by any means established. In a late conversation with Mr. Noble, of Massillon, Ohio, he observed that from his own experience, he had been led to the conclusion that a much greater profit could be derived from pasturing clover with sheep, than from plowing it in. He had found the wheat crop as good or better where the clover was pretty closely fed down by sheep, as where that crop had been plowed under; the land in both cases being similar. If this would be the general result, the additional profits of the sheep, would decide the case much in favor of pasturage.

In a late number of the New Genesee Farmer, we find Mr. Wm. Garbutt, (a very judicious farmer,) entertains similar ideas to those above expressed. Mr. G. considers pasturing clover two years with sheep, more profitable to the farmer, more enriching to the soil, and more beneficial to the wheat crop, than plowing it under.

We would suggest to agricultural societies the propriety of offering premiums for experiments to test this matter.

BREEDING RABBITS.

We have had some inquiries made as to the breeding and rearing of rabbits, some believing that it might be made a profitable business in particular localities. If any of the readers of the Cultivator have had experience in this business, we should be gratified to hear from them; in the mean time, we present from our foreign publications such hints as may be of service to those wishing to undertake the care of this animal.

There are several varieties of tame rabbits, but the broad chested and short legged are the most esteemed. In some rabbit warrens, or places of breeding, natural or artificial mounds of sand are provided, in which sleeping and breeding places are formed, as well as holes for retreat and security from their many enemies. In other warrens, they are bred in hutches or boxes placed in sheds, or places where they can be secure from vermin. The utensils for feeding rabbits should be made of some material they cannot destroy, such as pewter, earthen ware, or iron, as they are apt to gnaw all wood within their reach.

The female or doe will breed from the age of six months, and the period of gestation is about thirty days. The number produced is from five to ten, and the weak or sickly ones, should be destroyed at once. Immediately before parturition, the female makes her bed fine by biting down the materials, and lining it with fur taken from herself. The doe will admit the buck within a fortnight after parturition; and the young are weaned only a short time before the birth of another brood. During gestation, the female keeps secluded from the males, or should have the means of doing so, as otherwise she may lose her young. Rabbits may be bred throughout the whole year, if their beds are warm; but usually they will not average more than five or six litters in a season.

Rabbits require much the same food as sheep, and generally the treatment so far as food is concerned, that best agrees with the one will do so with the other. Mr. Mowbray, in his work on breeding rabbits, directs that they should be fed three times a day; and remarks that in feeding, the preference is always to be given to dry and substantial food. The test of health with rabbits is, that their dung be not too moist. The grain proper for feeding rabbits is oats, peas, wheat, pollard or shorts, and some use buckwheat. The greens and roots the same as for cattle and sheep. Carrots, Jerusalem artichokes, boiled or steamed potatoes, lucerne, clover, cabbage leaves, tares, &c. The best dried herbage is clover and meadow hay, and pea and bean straw.

Rabbits are eagerly sought in markets where they are to be found. Some of the larger varieties, if cooked in the same way, are equal in flavor to the turkey, and are highly prized. They are usually sold from the teat, but those that are older may be readily fattened upon corn and hay, with an allowance of good vegetables. The better the feed given to rabbits, the better the quality of the flesh, and the more the profit, as is usually the case in feeding animals. Rabbits are in their perfection for feeding at the fourth or sixth month; older, they become more dry in flesh and somewhat hard. Three months is the time usually allowed to make a rabbit fat and ripe. For the table or the invalid, the flesh of rabbits is equal to that of poultry.

Few kinds of live stock are less liable to disease than the rabbit. When diseases do occur, they may usually be traced to too much green food, and are remedied by a change to dry food and grain. If the difficulty is of a nature that does not readily yield to this treatment, they are generally knocked in the head, as the value of the animal will not allow much trouble in the cure.

THE LATE JUDGE BUEL.

One of our citizens, in looking over some French journals, found the following announcement of the death of our late distinguished fellow citizen Judge Buel, made to the Royal Agricultural Society of France in Nov. 1840, which he has translated and furnished for publication, in the persuasion that his many friends will be gratified to read this homage to the honorable character and important labors of one of our chief public benefactors, prepared for the records of the Society of France, hardly second in influence and reputation, to the celebrated Academy of Sciences:

To the President of the Royal Society of Agriculture:

Sir—It is my painful duty to announce the loss which the Society has lately met with, in the death of Mr. Buel, one of its corresponding members.

This estimable citizen, like the illustrious Franklin, began his career as a printer, and became the editor of several works.

After having honorably discharged the duties of a Judge in the County Courts of Ulster, in the State of New-York, he was appointed State Printer, and removed to Albany, where he established the Argus newspaper, which he continued to publish until 1820, when he gave up this occupation and devoted himself wholly, in the 43d year of his age, to agricultural pursuits.

Having purchased, near the city of Albany, a farm of 85 acres, which was considered little better than a desert of sand, he improved it to such an extent, and succeeded in obtaining such valuable crops, that he was called the "Providence of Albany." His lands, which had been bought for $30 per acre, were valued at his death at more than $200.

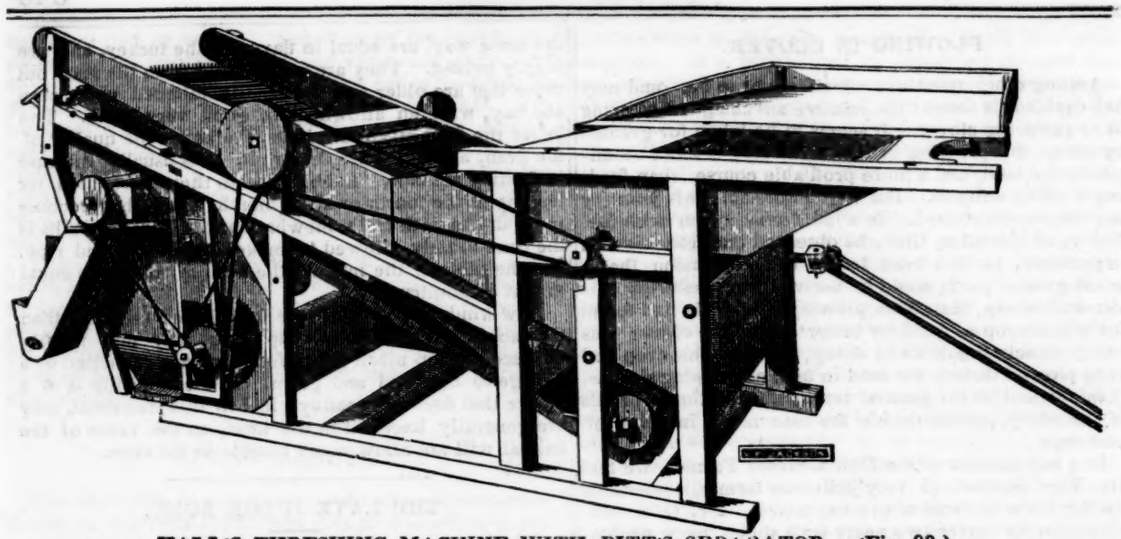
After his removal to Albany, he represented the city and county in the State Legislature, and was appointed a Regent of the University. The periodical called the Cultivator, which he established in 1834, under the auspices of the State Agricultural Society, enjoyed so great a reputation, that the number of its subscribers (exceeded) in 1838, fourteen thousand. I must not forget to mention a small but exceedingly important volume which he published, under the title of "Farmer's Companion," in which he gives an account of the most valuable of his observations and experiments in agriculture—a work prepared at the request of the Massachusetts Council, for the especial instruction of young farmers.

This useful and honorable agriculturist died of an attack of bilious fever in Connecticut, whither he had gone to deliver a discourse before the Agricultural and Horticultural Societies of that State. His loss will be long regretted by the many Societies that were proud to count him among their members.

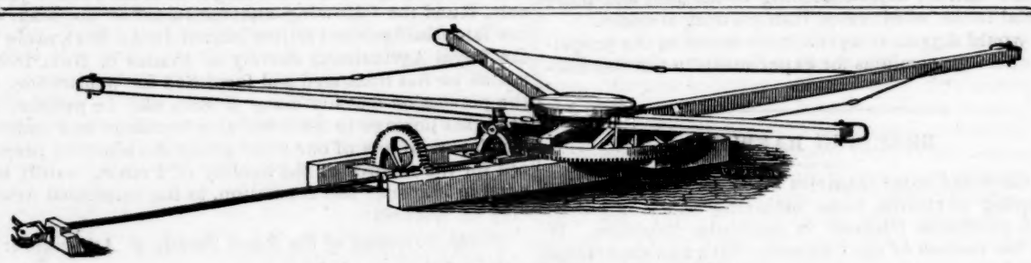
Accept sir, the assurance of my distingnished consideration. D. B. WARDEN.

Paris, Nov. 22, 1840.

Feed all fattening animals with perfect regularity—enough, but not too much. Save all your straw well for litter and winter feed.



HALL'S THRESHING MACHINE WITH PITT'S SEPARATOR.—(Fig. 93.)

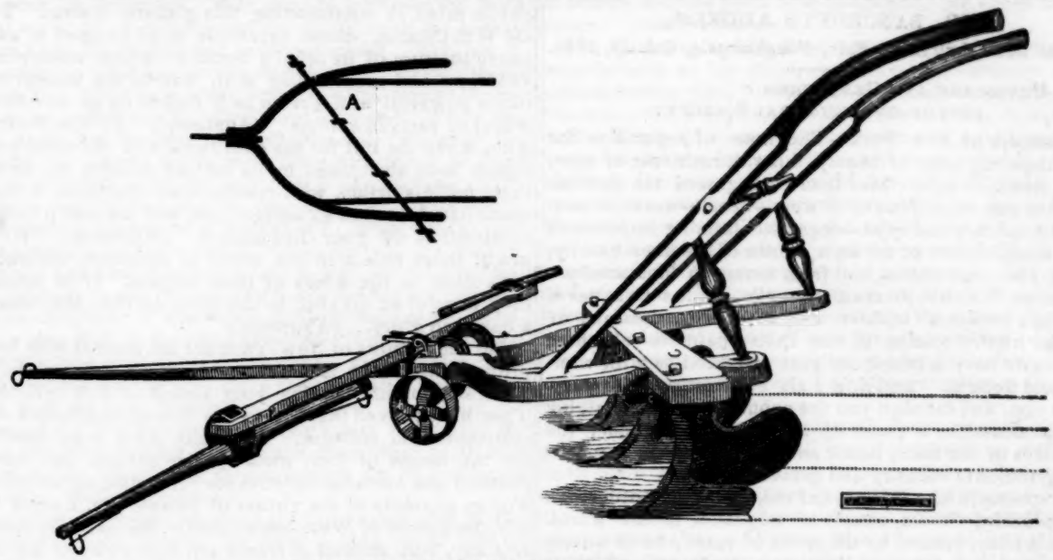


HALL'S HORSE POWER.—(Fig. 94.)

Above we give figures of the celebrated Horse Power and Threshing Machine, to which is attached Pitt's Grain Separator, manufactured by Joseph Hall, at Rochester, in this State. These machines are made of two sizes, and sufficiently strong for six or eight horses, though usually worked with four or six, threshing and clearing 200 bushels per day with ease. Of the cost of the machines, we are not informed. Any information respecting them, may be obtained by addressing the manufacturer at Rochester.

IMPROVEMENT OF LAND.

It is always very gratifying to hear of the improvement of old worn out or naturally poor lands; because it indicates the addition of solid wealth to the country, and sets a good example to others. It is a question well worthy of consideration, whether a good farm may not be made out of the poorest "old field" in the old States, at an expense much less than that involved in the emigration to, and purchase and preparation of, a rich one, in the western country; more especially, if the sacrifices incident thereto, be calculated in the account. Be that as it may, however, the improvement of poor land in all the old States, is an object of the first importance, both to individuals and States, to farmers and towns-people. Let any one look about the environs of the city of Baltimore, for example, or of Washington, or indeed any where in the middle and southern States, and see the large tracts of waste land that meet his view at every turn, and then ask himself whether individuals, cities, towns and States, would not all be benefitted by the improvement of these "old fields," and their conversion to profitable uses. But the thing is so self-evident, that no argument can be required to illustrate it. The *how*, not the *why*, it should be done, is the great point. *How* can this poor old field be made to produce thirty bushels of wheat, forty of corn, fifty of oats, or two tons of hay to the acre, at a cost that will enable the aforesaid crops to yield a fair interest on the investment and a fair compensation for the labor? That is the frequent question; and ten thousand echoes answer, "*aye, how!*" It is not intended *now* to answer this question, but to make a few remarks applicable to it, for the purpose of preparing the way for the answer at a future, but not distant day. We often hear of this and that case of improvement by this and that man, and of the wonders they have performed in the still more wonderfully short time of so and so many years. These announcements are always very gratifying to every body; they are eagerly sent forth to all the world in the newspapers, and are returned in grateful echoes upon the improver's delighted ears. And this is all right. It acts as a most powerful excitant upon others that had been more dilatory; it stimulates and encourages them to do likewise. But, unfortunately, they are always, or almost always, if not quite, accompanied by the well known fact, that the improvers were in possession of wealth, and that that enabled them to accomplish the wonders spoken of. They were not obliged to earn the bread they were eating, by the sweat of the brow, at the very time they were making the improvements. They were not obliged to raise the interest on the debt incurred in the purchase of that very piece of land, by hard work, at the very time they were ditching and draining and liming. They had the means wherewith to improve, and the time wherewithal to do it in. And is it wonderful, that with these attributes of ability in full possession, they made the improvements? Would it not have been wonderful if they had not? Still it is a good thing, no matter by what means it is accomplished; it is an act that deserves praise; just as does the proper appropriation of any and every other faculty or means any of us possess, and no more. Such improvers have simply performed an act of duty, which they owed to themselves, their families and their country—what else? But show to the world a farm once impoverished or naturally poor, that has been made fertile and productive, out of its own resources, by the judicious management and industry of the farmer, and that has in the meantime maintained that farmer and his family, besides paying some interest, and possibly principal of the purchase money, and all in the course of five or even ten years; then the world will have something to hold up to its rural inhabitants as an example that they ALL can follow. However commendable the former class of improvers may be, the latter is infinitely more so. The former has *purchased* a valuable property, the latter has *made* one. Farms may be found



WIARD'S PLOWING MACHINE—(Fig. 95.)

The above engraving represents, though not very correctly, a plowing machine invented by Mr. Thomas Wiard of East-Avon in this State. It is a combination of plows, arranged in such a manner as to operate precisely like a common plow, only that it is made so as to turn two, three or four furrows at once. It is designed to operate on all soils, after they are broken up, and is said to be used with great success on light or sandy soils even for the first plowing. The depth of furrow, from two to six inches, is regulated by a movable wheel. It has been thoroughly tested, and found to work well. The inventor has received the medals of the State Ag. Society and the American Institute, by whose committees it has been highly commended. All inquiries on the subject should be addressed to the patentee, Thomas Wiard, P. M., East-Avon, N. Y.

in many a part of the country that have cost their owners almost as much as it would to have paved their entire surface with silver dollars; and yet they are not a whit more productive than many others that never cost an extraneous cent. Many a farm may now be seen in any part of our country, that five years since, would scarcely pay for cultivation, but now yielding full, even heavy crops, that have never felt the influence of a particle of mannre or other fertilizer, that it had not itself produced either directly or indirectly. This is the kind of improvement our farmers want; this is the only kind that can be generally adopted. The men that have money enough to improve land, are generally those that will make some other use of it; and the few that will appropriate it to that object are rather exceptions than constituents of the rule. Much more good, therefore, will result from the publication of instances of self-improved lands, and the processes of the improvements, even though but a moderate degree of excellence be obtained, than can possibly proceed from the dissemination of facts in relation to *paid for* improvements; because the one proceeds from the proper application of industry and intelligence, and can be universally followed as an example; the other from the concentration of extraneous means, and can be imitated by but very few. No one can object to the application of foreign means to this object; on the contrary, the more they are thus applied the better. It is good for the individual most concerned; it is good for the country that the gold in his coffers should be made to enrich the land. But do not hold him up as an example to be followed by those who have not the means to do likewise; and very few have; not one in ten thousand probably—for it is rather tantalizing for a poor man to be told that he can make his land as rich and productive as his neighbor Dives', if he will expend five or ten thousand dollars in its improvement! Rather tell him how to do it by the means he possesses, his industry, for that is all his capital, and lay before him instances with details, of other cases that have succeeded by the same means. The man that shall raise from impoverishment a piece of land in this way, that is by his own industry out of its own resources, deserves more of his country than all the mere politicians that ever lived since the world was formed.

G. B. S.

Baltimore, Sept. 1844

SALERATUS A SUBSTITUTE FOR SALT PETRE IN CURING MEAT.—Saltpetre has long been considered by physicians as a bad article to be used in curing meat, being extremely injurious to digestion; it is of so cold a nature that only a small quantity is sufficient to destroy life. In the article of saleratus, we have an excellent, convenient and harmless substitute, and should be used in the same manner as saltpetre has been. Meat has a stronger affinity for saltpetre than for common salt. Saleratus has the same power in that respect, and thereby prevents the meat from becoming too salt; and the same quantity should be used as of saltpetre. There is this difference in them, that saltpetre dissolves readily in cold water, whereas saleratus does not; it should be pounded and dissolved before it is put into the brine. Saleratus is composed of sulphate of potash and pearlash; and if any person is disposed to procure the sulphate of potash at the shops, and use it instead of saleratus, they will find its effects substantially the same.

The usual way of saving hams and shoulders, is to cut them as soon as possible after the hogs are killed. This course makes the meat tough and stringy. In cool weather they should be kept on hand just as long as they can be, and not be in any wise tainted. Then rub them over with sugar or molasses, and let them lie a day or two. Then put them into brine in which has been put an ounce of saleratus dissolved, for each ham or shoulder; let them lie three or four weeks in the brine. Smoke them in an airy smoke-house, and they will be found tender and delicious.

C. D.

NIAGARA FALLS.—From a paper in a receut number of Silliman's Journal, it appears that "the motive power of the cataract of Niagara, exceeds by nearly forty fold all the mechanical force of water and steam power, rendered available in Great Britain," and that probably the law of gravity puts forth in this single water fall more intense and effective energy, than is necessary to move all the artificial machinery of the habitable globe. From a series of observations and measurements made with great care and skill at Black Rock and Lewiston, it is estimated that there flows out of Lake Erie, 22,440,000 cubic feet, or 1,402,500,000 lbs. of water every minute. The whole power used in driving machinery in Great Britain, is equal to 233,000 horse power, while that of Niagara is 4,533,334 horse power

MR. BANCROFT'S ADDRESS,

At the New-York State Fair, Poughkeepsie, Oct. 19, 1844.

MR. PRESIDENT AND GENTLEMEN OF THE AGRICULTURAL SOCIETY:

Farmers of New-York—The hour of separation for this dazzling array of beauty, this vast multitude of men, is at hand. Fruits richer than ever graced the gardens of Pomona—a paradise of flowers—needle-work the most exact, delicate and even—ingenious farming implements and manufactures of all sorts, cloths of the finest quality, from your own looms, and from looms in Massachusetts—horses, fit to win prizes at Olympia—cattle such as never fell in a hecatomb to Jove, and never were dreamed of by the highest genius of the Dutch painters—all these and more have arrested our gaze and filled us with wonder and delight. And now I am commissioned to summon you, and through you the population of this mighty commonwealth, to come up and join us, as, under the auspices of the State, honor and distinction are awarded to agricultural industry and genius.

A spectacle like this around me, of culture, order, and the peaceful virtues, cannot be surpassed in the world. In this hour, hushed be the spirit of party; be it utterly exorcised and banished from this enclosure, which is consecrated to the peaceful triumphs of the agriculture and the industry of New-York. [Applause.] We yield on this occasion to no narrower sentiments than the love of country, and of collective man, and we invoke the blessed influence of that universal Providence, which watches over the seed-time, and matures the harvest. [Applause.]

The theme for this occasion is the Agriculture of New-York. But what need of words to speak its praise? Look around you. The cultivated earth is its own eulogist. The teeming wealth that gushes from its bosom—the returns of its industry in every form, that present themselves in their abundance and perfection to our never wearied eyes—are the evidences of its magnificence. The trees in your market-place, and on your hill-tops, are older than the settlement of civilized man in our America; they are older than the presence of the plow on the soil of New-York: they are witnesses of the quite recent day, when your forests stepped down to your river's bank, and the glades and prairies of your west were covered with useless luxuriance. And behold the change which little more than two centuries have wrought: the earth subdued; the forest glades adorned with the white spires of churches, and gleaming with the light of villages; towns nestling in every valley; crowded cities, competing with the largest of the earth—profusely supplied with every article of food. And by whom has this miracle been wrought? By the farmers of New-York. [Applause.]

As I turn my eye northward, along the banks of the Hudson, my mind reverts to the memory of one of your ancient landholders, who died before our independence. Join with me, Farmers of New-York, in recalling the gentle and humane Robert R. Livingston, the elder, the father of the Chancellor. His home was in your vicinity; his mind was greatly and firmly, though not passionately, devoted to your service. An only son, husband of an only daughter, father of those whom the world will not soon forget; he was of so lovely a nature, that it seemed as if the fragrant atmosphere of spring, and the melody of its sweetest birds, and the softened reflection in your tranquil river of its grandest scenes, had blended together and melted themselves into his soul. Peace to his memory; let it not perish among you. Let the lines on his monument be refreshed and deepened.

Nor let me limit the achievements of the farmers of New-York to the subjection and beautiful adornment of its soil. The great works of internal communication, making this State a wonder to the world, were commenced by the enterprise of yourselves, were undertaken when farmers held power. Call to mind the immense structures which make this State the astonishment of the world; its channels for inward communication carried upwards to the waters of the St. Lawrence, stepping aside to the Ontario, and united at the northwest with the illimitable wildernesses of our inland seas; and then join me in paying tribute to those who were the servants of the public mind in commencing this gigantic system. To De Witt Clinton, whose capacious mind grasped in advance the sum of its infinite benefits—whose energetic, vehement and commanding will, was to the enterprise like a powerful mill-stream as it dashes on an overshot wheel of vast dimensions. (Applause.) To Van Buren, who, when the bill for the construction of the canal had almost been abandoned by its earliest friends, put forth those noble-spirited, well-remembered exertions, which resuscitated it when all seemed lost, and restored it to the approbation of your Legislature. (Applause.) Well might those chiefs in the world of opinions, embrace each other in the hours of their success. If in action they were often divided, in this great service, they share a common glory. (Applause.)

But the farmers of New-York are not content with improvements in the material world alone. From their generous impulses spring your system of free schools. They have proved themselves the liberal benefactors of academies and colleges. They too, have been careful for the means of their own special culture, and have founded and nurtured societies for promoting agriculture. For an example of the virtues of private life, I name to you the farmer of Westchester county, the pure and spotless Jay, who assisted to frame our first treaty of peace, which added Ohio and the lovely West to our agriculture. Side by side with him, I name the friend of his youth, Robert R. Livingston, the younger, the enlightened statesman of our Revolution, whose expansive mind succeeded in negociating for our country a world beyond the Mississippi, and gained access for our flag to the gulf of Mexico. Here, on the banks of the Hudson, he is celebrated as it were by every steamboat, and remembered on your farms through his experimental zeal. On this day be remembered the virtues of Stephen Van Rensselaer, who first brought Durham cattle into this State, and liberally diffused the breed.

Join with me also in a tribute to Mitchell, the faithful advocate, and perhaps institutor, of one of the earliest agricultural societies; to Jesse Buel, who connected science with fact, taught how the most barren soil may be made vastly productive, diffused his acquisitions by the press, and by life and by precept was the farmer's friend; (applause;) to Willis Gaylord, whose agricultural essays are standard authorities, honorable to the man and to the State; to Le Ray de Chaumont, who kept alive an agricultural society in Jefferson county, when all others had expired, and gave the impulse to the formation of the State Society, of which he was the first president; to James Wadsworth, for his skill as a cultivator, and still more for his liberal exertions, pouring out thousands after thousands, at the impulse of a generous mind, as if from a well-spring of good will, to promote agricultural science in primary schools. (Great applause.) And I should be wanting on the occasion, did I not tender the expression of your regard to the present president of the State Society, to the influence of that institution of which he is the honored head; to its Journal of Agriculture, to its annual fairs. But let me also entreat its friendly wishes to its purpose of establishing an agricultural school; and to that other more diffusive design of introducing, through its secretary, scientific works on agriculture into school libraries. I am happy also to announce that efforts are now making to constitute agriculture, as it deserves to be, a branch of instruction in one, at least, of your Universities. (Loud cheers.)

I have named to you some of the benefactors of Agriculture in New-York. Their benefits endure. The pursuits of the farmer bind him to home. Others may cross continents and vex oceans; the farmer must dwell near the soil which he subdues and fertilizes. His fortunes are fixed and immovable. The scene of his youthful labors is the scene of his declining years; he enjoys his own plantations, and takes his rest beneath his contemporary trees.

But the farmer is not limited to the narrow circumference of his own domain; he stands in relation with all ages and all climes. Your society has done wisely to urge on those who bear the Gospel to untaught nations, to study their agriculture, and report for comparison every variety of tillage. All ages and all climes contribute

to your improvement. For you are gathered the fruits and seeds which centuries of the existence of the human race have discovered and rendered useful. Tell me if you can, in what age and in what land the cereal grasses were first found to produce bread? Who taught to employ the useful cow to furnish food for man? When was the horse first tamed to proud obedience? The pear, the apple, the cherry, where were these first improved from their wildness in the original fruit? And whose efforts led the way in changing the rough skin of the almond to the luscious sweetness of the peach? All ages have paid their tribute to your pursuit. And for you the sons of science are now scouring every heath, and prairie, and wilderness, to see if some new grass lies hidden in an unexplored glade; if some rude stock of the forests can offer a new fruit to the hand of culture. For you the earth reveals the innumerable beds of marl; its mineral wealth, the gypsum and the lime, have remained in store for your use from the days of creation. For you, Africa and the isles of the Pacific open their magazines of guano; for you, (turning to John A. King and some other gentlemen from Long Island) old Ocean heaves up its fertilizing weeds. (Great applause.)

And as the farmer receives aid from every part of the material world, so also his door is open to all intelligence. What truth is not welcomed as an inmate under his roof? To what pure and generous feeling does he fail to give a home? The great poets and authors of all times are cherished as his guests. Milton and Shakspeare, and their noble peers, cross his threshold to keep him company. For him, too, the harp of Israel's minstrel-monarch was strung; for him the lips of Isaiah still move, all touched with fire; (applause,) and the apostles of the new covenant are his daily teachers. No occupation is nearer heaven. The social angel, when he descended to converse with men, broke bread with the husbandman beneath the tree.

[At this moment, Mr. VAN BUREN appeared and took his seat with the officers and other gentlemen upon the platform. He was received with the warmest enthusiasm, and it was some time before silence was restored so as to enable Mr. Bancroft to proceed.]

Thus the farmer's mind is exalted; his principles stand as firm as your own Highlands; his good seeds flow like self-moving waters. Yet in his connection with the human race, the farmer never loses his patriotism. He loves America—is the depository of her glory and the guardian of her freedom. He builds monuments to greatness, and when destiny permits, he also achieves heroic deeds in the eyes of his race. The soil of New-York, which he has beautified by his culture, is consecrated by the victories in which he shared. Earth! I bow in reverence, for my eyes behold the ground wet with the blood of rustic martyrs, and hallowed by the tombs of former heroes! Where is the land to which their fame has not been borne? Who does not know the tale of the hundred battle fields of New-York? Not a rock juts out from the Highlands, but the mind's eye sees inscribed upon it a record of deeds of glory. Not a blade of grass springs at Saratoga, but takes to itself a tongue to proclaim the successful valor of patriot husbandmen. (Applause.)

Here the name of Schuyler, the brave, the generous, the unshaken patriot, shall long be remembered; the zealous, reliable George Clinton, a man of soundest heart, a soul of honesty and honor, a dear lover of his country and of freedom. Nor do we forget him—the gallant Montgomery—twin martyr with Warren—who left his farm on the Hudson, not, as it proved, to conquer Quebec, but to win a mightier victory over death itself.

I renew that theme once more, to recount how the farmers of New-York have served their country and mankind. They were invested with sovereignty, and they abdicated. Glorious example! Highest triumph of disinterested justice! They themselves peacefully and publicly renounced their exclusive authority, and transferred power in this republic from its territory to its men. (Applause.) May your institutions, under the spirit of improvement, be perpetual. May every pure influence gather round your legislation. May your illustrious example show to the world the dignity of labor; the shame that lights on idleness; the honor that belongs to toil. To the end of time, be happiness the companion of your busy homes, and the plow ever be found in the hands of its owner. (Loud cheers.)

The farmer is independent. With the mechanic and manufacturer as his allies, he makes our country safe against foreign foes, for it becomes perfect by its own resources. All America, thanks to New-York, is united in the bonds of internal commerce; our exchanges at home exceed our foreign traffic; and were our ships driven from the ocean highways of the world, America has become competent to sustain herself. She has less to fear from war than any nation in the world. She may pursue her career and vindicate her rights, and call forth all her energies in conscious security. (Applause.) But why do I say this? To foster a spirit of defiance? Far otherwise. Let us rejoice in our strength, but temper it with the gentleness and spirit of love for all mankind—a love that shall perpetuate tranquility, and leave the boundless and rapidly increasing resources of the country at liberty for its further development.

Forests of New-York! under the hands of skill, shape yourselves into models of naval architecture, and go forth upon the seas to reconcile inequalities of climate, and confirm the brotherhood of nations. American ideas shall travel on your prows, and the genius of humanity guide your helm; while we who remain at home will water the tree of peace, so that its roots shall strike to the very heart of the earth, and its branches tower to the heavens: we will so nurture and protect it, that its verdure shall be perennial, that no spirit of animosity shall sway its branches, that not even a whisper of discord shall rustle in its topmost boughs. (Enthusiastic applause.)

One word more, and I have done. But with that last word, I am about to address, though but in imagination, the assembled people of New-York. It is a tale often repeated, that to do honor to agriculture, the Emperor of China is, himself accustomed in the spring-time of every year, to hold the plow and turn a furrow. Under our republican institutions, far more is achieved. The State itself includes, and is in the greatest measure constituted by its farmers. They themselves are the kings that hold the plow and drive the team every day in the year. (Applause.) The whole commonwealth watches over the farmer. This Society performs its office as the agent of the people. They are assembled at our fair, to view with honest exultation the products of the farms and workshops, and single out this occasion alone, on agricultural pursuits to award public honors to exalted merit. It is right, therefore, to assume that the Empire State itself is present in your midst.

[At this moment a sudden alarm was created by the settling of the stage, which was closely crowded. There was a crashing sound, and the whole appeared to be giving way. Mr. Van Buren was the first to spring up, and beg all to be quiet, as there was no danger. Mr. Bancroft immediately turned it off very happily—"Yes," he repeated, "the Empire State is in your midst, and when she is here with the broad shield of her parental protection over our heads, no evil and no danger can befal any of us—no, not even to hurt a hair on the head of the youngest, and weakest, and tenderest among us"—stooping, as he spoke, to lay his hand kindly on the head of a little child which had been seated up by its mother on the edge of the platform immediately at his feet. This little incident elicited great applause, after which Mr. Bancroft proceeded.]

And has it occurred that this great commonwealth—the most numerous people ever united under a popular form of government—is emphatically a commonwealth of the living? Go to the Old World, and your daily walk is over catacombs; your travel among the tombs. Here the living of the present day outnumber the dead of all the generations since your land was discovered. All, all who sleep beneath the soil of New-York, are fewer in number than you who move above their graves. Look about you and see what the men of the past have accomplished.

Concentrate in your mind all that they have achieved; the beauty of their farms, the length and grandeur of their canals and railroads, the countless fleets of canal boats they have constructed; their ships that have visited every continent and discovered a new one; their towns

enlivening the public plains; their villages that gem the valleys; the imperial magnificence of their cities; and when you have collected all these things in your thoughts, then hear me when I say to you, that you of this living generation, as you outnumber all the dead—are bound, before your eyes are sealed in death, to accomplish for New-York more than has been accomplished for New-York thus far in all time. Well have you taken the device on your banners; the sun as he emerges gloriously above the horison and comes rejoicing in the East:—Well have you chosen your motto: "*Excelsior*," upwards, still upwards. Mighty commonwealth! lift up your heart; let your sun ascend with increasing splendor towards its zenith. You shall be a light to humanity: a joy to the nations—the glory of the world.

LETTER FROM "DOWN EAST."

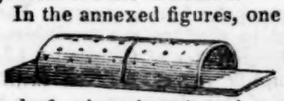
MESSRS. EDITORS—I belive that you have a correspondent to your truly valuable paper, from every State in the Union, but this, and for lack of a more interesting writer to fill this vacancy, I take advantage of a leisure evening to tell you a little about the part of the country I live in. And firstly, as to locality. If you will take a map of the State of Maine, and glance at the north-eastern portion of said State, that tract of land formerly known as the "Disputed Territory," you will see in the first range from the east line of the State, about forty miles north of Houlton, a township with a capital D in the middle of it. Well, in that township, only two miles from Fort Fairfield, so celebrated in the annals of the Aroostook war, lives your humble servant. Doubtless some of your southern or western readers will wonder what there can be to write from such an out of the way corner, that can interest any body "out in the world," as we term it. But I can assure you that this place is not so devoid of objects of attraction as one might suppose. In the first place there is some comfort in being far enough east to have a fair view of sunrise, and then I am only half a dozen miles from the "jumping off place;" the eastern end of this lower world. Then again there are yet to be seen by the curious traveler, the identical stump on which some time in the course of the aforesaid Aroostook war, in the times that tried men's *soles*, sat one of our soldiers, the unfortunate Bassett, when he cut his thumb making a pudding stick, for which he now receives a pension of seven dollars per month, and the house in which our Land Agent was captured, while sleeping soundly upon that feather bed, to enjoy which, he had left the "posse" sleeping upon boughs at the Fort, and had crossed the river into the enemy's country. The road too, upon which we travel into this country, is quite a natural curiosity, and I think would rival any of the Michigan roads of which Miss Martineau gives such a spirited description in her letters. The gridiron bridges, generally the dread of travelers, are the only decent part of our roads. The swampy places are mostly causewayed with logs laid *lengthwise*, and there they are now, some of them so rotten as to offer no resistance to the wheel's cutting down through deep into the mire below, while of the remainder, one end rears up most ambitiously, ready to catch the horse or wagon of the unwary traveler, while the other end is sunk into the lowest depths of the "slough of despond." But no description of mine can convey to you any idea of our roads, and I can only say that I considered I "escaped a great mercy," as I once heard a person say, in only breaking *one* axletree while coming in this fall. Perhaps you will wonder at my choice in leaving civilized life for a home in the woods, in leaving the cold regions of my native Kennebeck, for the still colder Aroostook; thus jumping not exactly out of the frying pan into the fire, but out of the refrigerator into the ice-house. But the cheapness and fertility of the land, and the nearness and facility of a good market, offered sufficient inducements to lead me to pitch my tent here, and I have not as yet seen sufficient reason to repent my choice. The State land can be bought here at 75 cents per acre, only one-fourth of which is to be paid in cash, the remainder being payable any time within four years, in work upon the roads built for our own accommodation. The soil, I presume from the representations of those who have traveled considerably through the eastern States, is equal to any that can be found in New-England. It is of four kinds—a light yellow, a chocolate color, a whitish gray, and in the cedar swales, a black mucky substance, apparently as rich as barn-yard manure, lying above one of the other varieties of soil. These different kinds of soil are all frequently found in the distance of two rods, and we like to have them in close proximity so as to mix by harrowing and plowing. The subsoil is generally gravelly and rests upon a limestone ledge, set up edgewise and so porous that the water, in a wet spell, runs down through it as it would through a sieve. The consequence is that the land can never be wet, and is always fit to work upon immediately after a rain. Another peculiarity is that it stands a drouth remarkably well, also. Why this should be, I do'nt know, unless it be that the moisture, in a dry time, draws up from down in the ledge by capillary attraction. The ledge appears to be in process of decomposition, and can in many places be shovelled with facility; the soil is full of little pieces of slate or limestone, which upon being turned up and exposed to the air, soon pulverize and disappear. The soil is generally pretty clear from stone, although there is now and then a stony spot, but there are no large boulders to be found. The great drawback upon this region as a farming country, is its liability to early frosts, but I think that all our crops except corn and beans, are as sure here as in Massachusetts, or the oldest settled parts of Maine; that is, I think the frost does not injure us any more than the rust, drouth, &c., do there. And if we are so unlucky as to lose our crops every third year even, we are twice as well off as farmers in other parts of New-England, for we can raise three times as much crop with the same labor in a good season, as they can. Wheat has been raised here on burnt land at the rate of more than forty bushels to the acre, and oats at the rate of eighty. I am satisfied that no part of New-England can compare with our section for raising wheat, oats, rye, barley and potatoes. The growth is generally, I believe, a pretty fair indication of the soil beneath, and the trees here will average about twenty feet taller than in Kennebeck, and large in proportion. The growth consists principally of rock and white maple, yellow birch, ash, pine, cedar, fir, spruce, and hackometack, juniper or larch, as it is variously called. The birches are generally from three to five feet through, and I saw one which was cut down last year which measured five feet across the stump. The cedars are very large and plenty, and grow on as dry land as any we have, with birches scattered among them. A missionary who is now visiting us, noticing that a spruce recently felled, looked very long, took the trouble to measure it, and found it 130 feet in length. The greatest difficulty with this country, appears to be in the way the inhabitants manage the soil. I notice that a great deal is said now-a-days in the agricultural papers, of rotation of crops, and I have seen several shifts recommended, but none quite equal to that adopted here. The first two crops after clearing are wheat; then they take off two of oats, three of barley, half a dozen of buckwheat; and then they will swear at the land, because it does not bear grass. This applies however only to the blue noses, the aborigines of the country, as you might term them, who have been in quiet possession of the country on the banks of the Aroostook until within four or five years, but are now fast clearing out as the Yankees come in and take possession of the country. But the length of my epistle admonishes me that it is time to close. So no more at present. When the crops are threshed, I will write something about the yield here. GEORGIUS.

MENDING A TREE.—The Boston Cultivator says—"We saw at Isaac Frost's, Newton, a tolerably large apple tree that had the bark eaten all around by mice, some years ago, and of course would have died, without some extra pains to save it. Mr. Frost set about a dozen scions in the tree, one end in the green bark and wood below, and the other above the wound. They all took at both ends and grew well, except one which took only at the bottom, and is forming a little tree by itself. The scions are now about two inches in diameter and are touching each other. The tree is in a fine flourishing condition."

TILES FOR DRAINING.

It is hoped that the attention of farmers and agricultural societies may be directed to the encouragement of the manufacture of this article, as to one of the most important aids to successful cultivation. The difficulty of constructing durable under-drains in sandy grounds, has doubtless been felt by every one who has attempted it to any extent; and the frequent severe disappointments and vexation caused by the breaking in of the soil during heavy rains, and the consequent obstruction of large portions, render it exceedingly desirable to discover some means of avoiding these losses. It is believed the only effectual one, yet discovered, is the use of tiles. With a very few exceptions, these appear to be unknown in this country. They will be appreciated, as facilities for their general use are increased.

In the annexed figures, one of the best modes of construction is represented. Each piece or tile forms an arch about 1 foot long,



and of a size adapted to circumstances, generally about 3 inches wide and 3 high, inside. Where the ground is very hard, they sometimes rest immediately upon it; it is best, however, in all cases, to use flat plates or "soles," of the same material, to support the lower edges. These should be a little wider than the outside of the tile. The following just remarks, as to their shape and construction, are from an eminent manufacturer in Ayrshire. "All tiles should be *one-fourth* higher than wide; the top rather quickly turned, and the sides nearly perpendicular. Tiles which are made to spread out at the lower edge and flat on the top, are weak and bad for conveying water. Some people prefer tiles with flanges instead of soles; but if placed even in a drain with a considerably hard bottom, the mouldering of the subsoil by the currents of air and water causes them to sink and get deranged." "Tiles," says Johnson, "should be smooth on the surface, heavy, firm, and ring like cast iron when struck with the knuckle. They should be so strong when set, as to allow a man, not only to stand, but to leap upon them, without breaking. The introduction of machinery in the manufacture of drain-tiles, by compressing the clay, and working it thoroughly in a pug-mill, to prepare it for being compressed, has greatly tended to increase the strength of tiles. An underburnt as well as an overburnt tile, is bad, the former being spongy and absorbing water, and ultimately falling down; and the latter is so brittle as to break when accidentally struck against any object."

It will be perceived by the figure, that the joints of the tiles alternate with the joints of the soles, both being of equal length. Straw is placed round them before filling the ditch, to prevent the washing of the soil through the crevices at the joinings, which admit sufficient passage for all the water.

The price of tiles must of course vary with circumstances, price of fuel, &c., and their cheapness will also be increased with the amount of manufacture and improvement of machinery. A machine, invented by the Marquis of Tweeddale, driven by one horse, and attended by one man and two boys, will make 12,000 tiles in a day of ten hours; the clay being previously prepared—three or four men being required to produce 1,500 tiles by the common way, in the same time. Judge Buel, who laid about two miles of tile drain, procured them manufactured in Albany, at an expense of twenty-five cents per rod, which afforded a passage for the water 4 inches square. He used boards for the "soles."

It is not known that any well laid tile drain, has ever given way or become obstructed; and hence, though costing more at the first outlay, they may be the most economical in the end. The diminished width needed in digging the drain, and the facility in laying them, will of course materially lessen the cost of tile-drains.

J. J. T.

Ruta bagas should be pulled with a ruta baga hook—a tool with a small sharp hoe on one side to top the root with one stroke, and two prongs on the other for drawing the root after topped, from the ground.

TO COLOR SCARLET.

Mr. Tucker—I have been asked several times within a year or two past, how to *color scarlet*. Not possessing a practical knowledge of the *art of dying*, all the information I could give was based upon a knowledge of the chemical principles involved in the process. Those who tried the experiment in accordance with the directions given, failed; and as I believed in consequence of not procuring the proper *Mordant* or Tin compound; but all said they made a very nice pink. I have felt desirous of gratifying that portion of community most interested in operations of this kind, and have thought of making the inquiry through the columns of the Cultivator; but, having a few weeks since read an article in Dr. Ure's Dictionary on Arts, Manufactures, &c. on *dying Scarlet*, I have taken the liberty of transcribing it for publication in your paper, hoping that it will be acceptable to at least some of your female readers, as the present is the usual season for dying woolens.

Bouillon, or Coloring Bath.—For every pound of cloth or wool, take 14 drachms of cream of tartar, (put into a convenient quantity of water.) When the bath is boiling and the tartar all dissolved, add 14 drachms of solution of tin *(Tin Mordant,* which see below,) and let the whole boil together during a few minutes. Now introduce the cloth, and boil it for two hours; then take it out and let it drain and cool.

Rougie or Finishing Dye.—(Three modes of preparing this are given, either of which may be selected.) For every pound of woolen stuff take 2 drachms of cream of tartar. When it begins to boil, add 1 ounce of cochineal reduced to a fine powder, stir the mixture well with a rod of willow or any white wood, and let it boil for a few minutes. Then pour in by successive portions, 1 oz. of solution tin *(Tin Mordant,)* stirring continually with the rod. *Lastly,* dye as quickly as possible. The color will be a beautiful scarlet.

Second scarlet process.—The Bouillon or coloring bath, the same as above given, and always estimated for one pound of stuff.

Rougie or Finishing Dye.—Take 1 ounce of cochineal in fine powder, and two ounces of *Tin Mordant* without tartar.

Third Scarlet process.—The *Bouillon* being as above. *Rougie.*—For a pound of woolen stuff—take two drachms of cream of tartar, one ounce of cochineal, one ounce of solution of tin, and two ounces of sea salt, dye as in process first. The salt, it is said, helps the dye to penetrate into the cloth.

Tin Mordant for dying Scarlet.—Pour into a glass globe, with a long neck, 3 parts of nitric acid at 30 deg. and one part of muriatic acid at 17 deg.; shake the globe gently, avoiding the corrosive vapors, and put a loose stopper into its mouth. Throw into this nitro-muriatic acid one-eighth of its weight of pure tin, in small bits at a time. When the solution is complete and settled, decant it into bottles and close them with ground stoppers. It should be diluted only when about to be used. When the tin compound is prepared as above directed, it may be depended upon. The following is often used by dyers, but is an inferior article.

Mix one pound of nitric acid with one pound of water, and dissolve in it an ounce and a half of sal ammoniac. Stir it well, and add, by very slow degrees, 2 ounces of tin turned into thin ribbands upon the lathe. Yours,

Clifton Park, Sept. 24, 1844. H. C. C., M. D.

Potatoe Onions.—The Brockport (N. Y.) Watchman says that Mr. J. Greenleaf, of that place, has raised this season, 500 bushels of potatoe onions from an acre of land. Some of the largest weighed 1½ lbs. each, and were 17 inches in circumference. This kind of onion is thought by seme to be valuable as an early sort—they grow wholly in the ground, like the potatoe. They are said to be mild and palatable.

Essay on the History, Character and Value of Guano, by D. P. Gardner, M. D., New-York. We have scarcely had time to glance at this pamphlet, but have seen sufficient to satisfy us that it is got up in an interesting and instructive manner.

SAXON SHEEP AND THEIR CROSSES.

Notwithstanding that the Escurial or Saxon breed of sheep have been so long in the United States, it would seem that their merits and demerits are not yet fully understood. The truth seems to be that the Escurial, or pure Electoral Saxony, are a hardy race of sheep, and that in their organization they possess every element which, in other breeds of sheep, is necessary for their preservation and prosperity. Their bones are small, but their bodies are very round, with broad shoulders, thereby forming a chest which is anteriorly large, and which gives them great strength according to their size. They have less yolk than other kinds of merino; but it may not be necessary for them, as their wool is very thick, and time has adjusted their qualities and proportions so that they can sustain themselves with moderate care in almost any climate of the temperate zones. The only reason why they have been esteemed so very tender and delicate, is that they were known almost only by the crosses which have been made between them and other breeds of Merinoes, and these generally were worthless, miserable animals.

The Escurial flock in Spain formerly contained fifty thousand, and if they had been so very tender and delicate as thought by some, it does not seem reasonable to suppose that their proprietors would have continued to propagate them, as they could easily have obtained others which were hardy. Mr. Grove's success with them, goes to show that they are hardy—but as one experiment may not satisfy all, I will relate the experience of my neighbor, Mr. Jacob Cook, and also my own, which may serve to elucidate the subject. Mr. Jacob Cook formerly owned a flock of the short wooled breed of Merinoes, but not being pleased with the appearance of dirty looking sheep, he purchased, ten years ago, a few *White Merinoes*, as he calls them, which were brought from the State of Maine. They are high grade Saxon, and are evidently a cross between the Saxon and the old breed of New-England sheep, without any mixture of any other breed of Merinoes, and have less yolk than the pure Saxons. They are great milkers, and he has been very successful in raising lambs. He gives them very little grain, and in winter, in latitude 41 deg. north, he provides them no shelter from rain and snow, having neither sheds or stables for them, and they do not appear to suffer with cold any more than the best breeds of Merinoes of other kinds. Their wool is nearly equal in fineness to that of full blood Paular. The last time at which he took an average of the weight of the fleeces of his flock, it was 4 pounds two ounces.

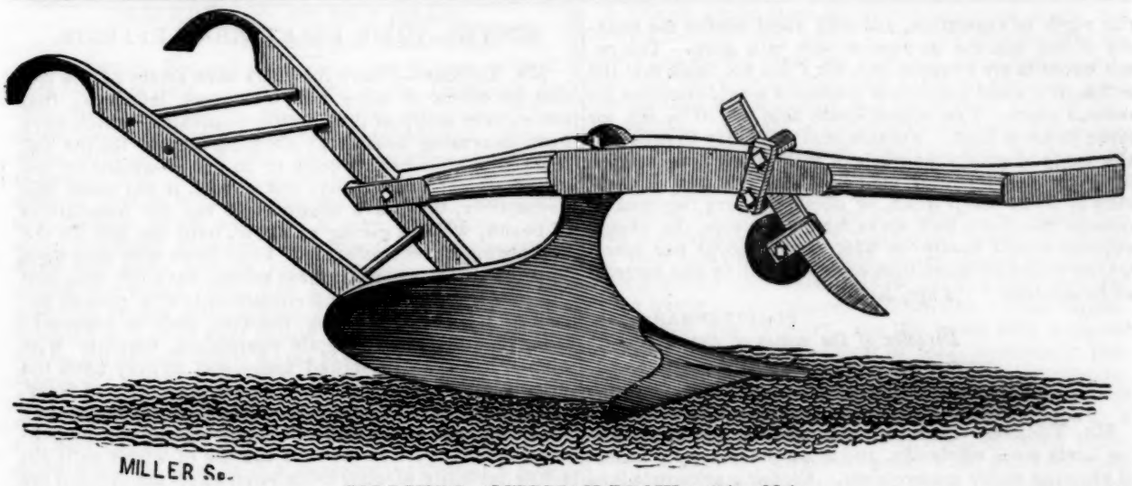
Again, in 1837, I had a hardy well formed high grade Saxon ewe, having very little yolk, which I afterwards kept till she was twelve years old, and then fatted her off, making most excellent mutton of her. I crossed her that year with a long wooled ram of another breed of Merinoes, whose wool was black with yolk. The cross produced a round bodied well formed ram, having a great abundance of yolk, but which, when four years old and in good order, and standing with a dry fleece in a sheep barn among other sheep, would shiver with cold, when both sire and dam and all others, appeared perfectly unaffected by the cold.

These experiments would seem to show that the Saxon sheep, pure or of high grade, are hardy; that crossed with the old breed of New-England sheep, they make a hardy race, which are well suited to the use of those who wish to raise wool which is not quite so fine as the pure Saxon, but whose fancy is such that they must have *clean white sheep*; and therefore a cross between the pure Saxons and the Leicester or South Down might possibly make useful sheep for such persons.

Unfortunately, almost all the Merino sheep in the United States have been crossed with the Saxon. Mr. William Jarvis imported six kinds—among the rest, Escurials, which he mixed with the others; and therefore probably all the sheep in Vermont are tinctured with this breed; but as the people of Vermont have attended to those points which more particularly distinguish the Paular breed, it would seem that they must have nearly run out the Saxon, and that by selection and improvement, may show fleeces as thick and heavier than those of the Rambouillet flock, as their wool may be of a longer pile. For the Rambouillet flock is also tinctured with the *Escurial or Saxon breed*, as may be seen by the color of its wool, which is a cream color—and their wool is also shortened by it. Don Pedro, the first Rambouillet ram imported to this country, had wool only one and three quarter inches long, whereas the Negretti wool will average two inches in length, and the Paular two and a quarter to two and a half in length. Nevertheless, this Rambouillet flock may be hardy sheep; for this point of hardiness can only be determined by experience. And therefore the Rambouillet flock is still capable of improvement by increasing the length of its wool. When a flock is made up of a number of different breeds, it is very difficult, nay, almost impossible, to consolidate it so that their progeny shall appear homogeneous. Each kind will seem determined to dissolve the confederacy and set up for itself; and the remains of Chancellor Livingston's flock will exemplify this fact. The skillful breeder, taking advantage of this circumstance, may by selection, run them all into one of its kinds so as nearly to resemble each other. By reference to Burgoanne's travels, it will be seen that the Rambouillet flock was originally composed of seven different kinds or cavanas of sheep. Selections were made from the Paular, Negretti, and *Escurial (or Saxon)* cavanas—also from the cavanas of the Marquis de Iranda, the Marquis de Perases, Manuel de Balbucua, and the Count de San Rafael. The commissioners appointed by the French in 1785, were permitted by the Spanish king to select from the best flocks in Spain, and have, by publishing their proceedings, pointed out where the best may be obtained. Mr. Jarvis informs us that the remains of the Paular and Negretti flocks were taken to England and Scotland. But as the insane practice of mixing all breeds together does not prevail so extensively in Britain as in this country, it is probable that the Paular or Negretti breeds may be obtained from them in their purity. Among British sheep, it seems the best sheep have been formed by improving each kind by itself—witness the Leicesters, South Down, Cotswold, &c., and it seems as though the same course should be taken with the Merinoes—for there is as much difference between the different kinds of Merinoes as there is between different breeds of British sheep, only that their wool being all fine, these differences are not so readily noticed as those of coarse sheep. Any person who will import the Paular or any long thick wooled breed of pure Merinoes from Britain or Spain, and improve them as Mr. Grove has done the Saxons, and keep them unmixed, will confer a great favor on the wool-growing interest. We may then obtain fine wooled sheep, having good constitutions and large fleeces well covered with yolk, unique in their appearance, having wool of an even length on each sheep and of a greater softness than can be obtained from flocks made up from a variety of breeds. For superfine wool, we must always depend upon the Saxon; and between them and all other breeds of *Merinoes*, there should be a perpetual non-intercourse.

C. D.

COLLEGES.—We have long been of the opinion that reform was no where more needed than in the course of studies pursued at our Colleges. The necessity for this reform is well set forth in the following paragraph, which we take from one of Mr. COLMAN'S Agricultural Addresses:—"Classical learning, so called, which occupies now a large portion of the best years of those who pursue it, excepting as matter of mere taste, pastime, or embellishment, is of little substantial use to any one. It is a notorious fact, and in my opinion sufficiently disgraceful to the boasted wisdom of the age, that at least two-thirds of the young persons, who enjoy the best advantages of a liberal and classical education, and come out adorned with the highest honors of our colleges and universities, are even then incapable of keeping themselves from starvation; and have then to begin to learn the practical arts of life; and the remaining third are able to do it, not from any thing they have learned at these places of education, but from what they were compelled perhaps by stern necessity to learn elsewhere."



CODDING'S AMERICAN PLOW—(Fig. 98.)

Represented by the above cut, is manufactured at Rochester, N. Y., by M. D. & T. H. Codding. Its symmetry of form and proportion, are such as to secure to it the qualities of lapping the furrows, or of turning them perfectly flat—but more naturally gives the half lap, which possesses all of the advantages of both the other forms, with none of their disadvantages; and leaves the soil very loose and friable, which is the result of its concave form, which also gives it great superiority for turning in stubble and clover, which it completely covers. Turns uphill perfectly, and is very superior for working in stony and hard land. It runs very steady, and requires less power to do a given amount of work, than a plow made on any other principles, if of the same size. The wood work, which is of the very best of white oak, is all prepared by machinery, and put together in the most simple and substantial manner; the castings are polished; and to suit every variety of taste, the coulter, roller, and clevy fixtures are made after several different models, some of the new ones being very superior in many respects.

Rochester, N. Y., Oct. 10, 1844. M. D. CODDING.

DISINFECTION OF FECAL MATTER:

Its cheap and immediate conversion into manure.

Agriculturists are acquainted with the powerful properties of poudrette manure. The expense of its preparation and transport has hitherto limited its use to gardens and farms in the neighborhood of its manufactory. From the facts contained in the following letter, laid by M. Dumas before the French Institute in July, and which we commend to the serious attention of our readers, we learn that this potent auxiliary of production may be made quickly and at a trifling cost on every farm. The disinfecting agent used, is the sulphate of iron, or the copperas of the shops, which can be purchased at $1,37½ the hundred pounds. Should the practice of using it for this purpose become general, it is evident a great addition will be made to the resources of agriculture, particularly in the neighborhood of towns and villages. There is one application of the solution of copperas, not alluded to in the letter, which we would suggest to those who shall make a trial of it; we mean its application to the ordinary dung-hill. If each new layer added to a manure heap were sprinkled with copperas water, much, if not all of that most valuable element, the ammonia, which is now lost by its volatility, would be converted into a fixed salt, and thus saved. We suppose, of course, that the double decomposition which ensues on the addition of sulphate of iron to human excrement, would take place equally in the farm yard, a fact easily determined by experiment.

T.

Translated from the Moniteur Industriel of July 11, for the Cultivator.

SIR—In experimenting upon the simplest and most economical practical means of saturating the carbonate of ammonia of fecal substances, I have ascertained that sulphate of iron is to be preferred. This salt in small crystals and of the commonest quality, may be had for 8 or 10 francs the *quintal metrique*, (220½ lbs. avoirdupois—in Albany, copperas is sold at from $1,37½ to $1,75 per 100 lbs.,) and is more easily transported and managed than acids, which may occasion accidents in unpracticed hands. But sulphate of iron offers another remarkable advantage which must secure for it a preference.

The noxious and disagreeable effluvia exhaled by fecal substances, proceeds chiefly from the volatilization of carbonate of ammonia and sulphuretted hydrogen gas, which has been often fatal to scavengers. If we pour a solution of sulphate of iron into fecal matters, a double decomposition immediately takes place; the sulphuric acid of the sulphate combines with the ammonia, converting it into a fixed salt, and the iron forms with the sulphur, sulphuret of iron. The exhalations of ammoniacal vapor and sulphuretted hydrogen immediately disappear, and the fecal substances lose all but a slight smell peculiar to them, combined with the odor of the little vegetable matter they contain, and are not at all offensive.

When these substances are sufficiently liquid, the solid excrements are *dissolved* (in great part;) what remains, precipitating as a blackish slime.

I obtained this result by treating in the above manner, the contents of my house privy. The liquid I used at two degrees of strength for watering my garden, and the blackish deposit of trifling volume which had subsided, was spread upon the beds without occasioning the least inconvenience.

Fecal matters saturated with a solution of sulphate of iron may be transported by day as easily as common manure, without incommoding any body. As they form a very rich manure, they can be carried to greater distances than ordinary dung, and be readily diluted to two degrees to be used in the liquid form. (By two degrees, are meant two degrees of Beaume's hydrometer, which is graduated to 72 degrees generally—the first degree corresponding with water taken as unity—the last representing a liquid of twice the density of water, so that 2 degrees indicates a liquid of a density 1 1-72 greater than water.)

Fecal substances without previous saturation lose their carbonate of ammonia, which volatilizes, and are thus deprived of their most energetic fertilizing element.

The greater part of human excrements are lost at the present day, because they are not collected with care nor properly treated, on account of the repugnance they inspire. Yet they are of immense importance to agriculture. The solid and liquid excrements of a man may be estimated at 1.65 pounds per day, or 618 pounds per annum, containing 3 per cent of nitrogen, or 18 pounds, a sufficient quantity, according to Boussingault, to produce 880 lbs. of wheat, rye or oats.

Some portions of a meadow which I watered last year with a solution of ammoniacal salts at one degree, of two quarts to the square yard, still continue to exhibit supe-

rior vigor of vegetation, and will yield double the quantity of hay that the unwatered part will give. The result exceeds my expectations, for I did not think that the action of a small quantity of ammonia would continue for several years. I no longer doubt that it will be felt for three years at least. Ammoniacal salts may thus be easily made to supply the wants of soils where dung enough is not produced—for if we admit that 880 lbs. of these salts at 5 cts. and 3 mills, or about $47, are required to manure two and a half acres for three years, the annual expense would hardly be $16, (about $6,40 per acre,) which would be more than compensated by the increased production. I am, &c.,

SCHATTENMANN,
Director of the mines of Bouxwillier.

TURNING UNDER CLOVER, &c.

MR. TUCKER—There is perhaps no method of enriching lands more efficiently, and at so cheap a rate, as that of plowing under green clover. Clover is acknowledged by all practical farmers, as one of the best, if not the best grass in existence for fertilizing lands. Its long tap roots reach into the subsoil below, and loosen and render the soil light and mellow; and there is a substance which gathers around the roots over clover, in the form of rich mold, which I think no other grass is capable of producing. Yet with these general facts before the eyes of farmers, how few of us have yet resorted to this method of renovating and enriching our worn out lands. Many of us farmers, when we get a crop of clover grown, dislike to plow it in, as it looks too good to be wasted, and the consequence is that it is cut for hay, and ten chances to one if it is not spoiled in making, so that by the time it gets into the barn, it is nothing but a bunch of stems. There are many different opinions as to the management of clover, and as to the best time of turning it under for enriching the soil. Some prefer to have the stalk in a dead ripe state before they plow it under, and think that in this state it is in a more fit condition to furnish food for plants than when in a green state. Others prefer to have the crop fed off one or two seasons by cattle, and then have the mass of trodden down clover, together with the droppings of the animals, turned under for a crop of corn or grain as the case may be. We have succeeded in raising the largest crop of rye which we ever raised, by pasturing off a crop of clover two years, and then turning the whole under, with once plowing. There is no question, I believe, but that if farmers will allow clover to grow on their farms, it will enrich them greatly, whether fed off or turned under as a green crop; and yet many farmers are afraid to have this grass grow on their lands. They say that they do not want to sow much clover on their lands, as enough will come in of itself. This doctrine plainly indicates that they are afraid of this best of all grasses for enriching the soil. I think the majority of practical farmers will say that the best time for plowing under clover, is in a green state, at a time when the stalk contains the greatest quantity of saccharine juices. That time is when the stalk is in full blow. Where a crop of clover is thick and heavy in the ground, a heavy roller passed over it the same way that you plow, may press it down sufficiently to turn under. If not, a chain attached to the plow beam, let down so as to drag the clover down, will do the work pretty well. Care should be taken to have all turned under that possibly can be. In this state it should lie till it is thoroughly decomposed. On plowing it again, it will be found that the ground is light and mellow. But it may be said by many that on poor, worn out lands, it will be of little use to sow clover, as the soil will not produce it. In answer to this, I would say that on such lands, commence with buckwheat, and turn in a crop or two of that, and then oats, and then try clover, and do not be discouraged if the first crop of clover is not as thick as you could wish, but try another crop, and you will soon have the satisfaction of seeing your worn out lands in a state of fertility. In conclusion, I will say to the farmer, that whether you feed off your clover, or turn it under green, or make it into hay, sow clover. L. DURAND.

Derby, Conn., Oct., 15, 1844.

STOVES—THEIR DELETERIOUS EFFECTS.

MR. TUCKER—I have for years been aware of the fact that the effects of stove heat were very injurious; that many, very many of the chronic complaints, which have been increasing to such an alarming extent for the last few years, have been wholly or in part produced by the use of *stoves;* that silently, and almost, if not quite, imperceptibly, they have continued to sap the foundations of health, without giving an alarm, until too late for the application of successful aid. Even those who have been to some extent aware of these effects, have not imagined the extent of the evil, and consequently this prolific parent of those most afflicting diseases, such as consumption, nervous and dyspeptic complaints, together with others, has been permitted unarrested to prey upon the vitality of our constitutions. This is no picture of fancy, but a sober, serious fact, forced upon my understanding by experience and observation, and against my prejudices, for they were in favor of the use of stoves until absolute certainty of conviction compelled me to yield the point. Experience, followed by observation, had years since convinced me that the effects of stove heat, were to check *expectoration,* thus deranging the action of the *lungs*—to produce a corresponding effect upon the *skin,* which prevented *perspiration,* and through these, to affect and derange the whole system; thus producing a debilitated action, and feverish or inflamed state of the blood, causing coldness of the extremities, and followed by other symptoms in their turn, according to the constitution. Want of change of air in the room, difference of temperature between the air in the top of the room and at the bottom, and obstruction of moisture, had been looked upon as some of the causes of these effects, but there appeared to be still another one farther back; some organic change of the atmosphere, the effects of which were perceptible, but its nature, incomprehensible. This has heretofore prevented me from publicly sounding the alarm, though I have continued to do it in private.

The light thrown upon the subject, by a new system of philosophy, which the recent developments of science have enabled me to combine, has removed that barrier, hence this communication.

Electricity being one of the principal combining agents in nature, is consequently a necessary element of physiological combination, and is introduced into the system principally through the lungs, and has to do with the action of the skin also. It is also necessary in the combustion of fuel, and we find the atmosphere charged with the requisite quantity of it for these purposes, but the construction of stoves is such as to limit the amount of air; hence iron being a good conductor of electricity, that agent is abstracted from the surrounding air. This process also decomposes the moisture which the atmosphere contains, which consequently loses its most essential ingredients for the support of animal life, and also becomes a non-conductor of electricity, which prevents it from receiving a fresh supply from without. Water upon the stove, in part, but not wholly, remedies the defect.

In view of these facts, it behooves the American people, to look for, and apply a remedy for these evils, if they would escape the threatened curse of becoming a miserably sickly and enervated race. M. D. CODDING.

PEACHES.—The editor of the Boston Cultivator gives an account of a visit to the "Allen neighborhood" in Walpole, where he found some of the finest peach orchards in the country. He states the following singular fact in relation to a variety of the peach reproducing its kind. He says: "The principal peach cultivated here is the Allen peach, which is a seedling that has been propagated from the seed more than 40 years, through many generations of trees, always producing about the same, without budding or grafting. There is no more deviation from the original or standard kind, than there is in the Baldwin apple, or other varieties of fruit propagated by budding and grafting. We saw some trees bearing full that were 28 years old, and they had borne well from their youth to their old age." It is said to be a good peach—well deserving a place among the best—color light, with a red cheek—a freestone.

DESTRUCTION OF NUT GRASS.

Bermuda, West Indies, 4th Sept. 1844.

L. TUCKER, Esq.—I have been one of your subscribers for some time. I have seen in the Cultivator for May last, information requested to extirpate "Nut Grass," and some person has recommended salt. We are much infested with it here, and I have tried every way to get rid of it. Salt did kill it where it came immediately in contact with the nut, but it does not kill them any distance in the soil, and is very expensive. The more you plow or spade, the worse it is, as you cut the fibres and make a dozen plants for one. I got at last, strong four prong forks, like potatoe forks, and after it was well grown in the spring, I made my men fork it up. In doing this, great care should be taken not to break the fibres, but as they throw up the soil, break the lumps, and take it out gently, throw it forward on the ground that is dug. You will sometimes follow a string of nuts two or three feet long. After it is all dug over, remove it from the field and burn it, or you may put it in casks, press it down well, and saturate it with strong pickle; let it stand for some time, and it will rot the nuts and the grass, and make good manure. This may be considered a tedious and expensive job, but it is the only way I can find out to get rid of it. A good piece of ground may be redeemed, and the forking pulverizes the ground so well that it will pay the expense, particularly in this Island, where we have no good ground to spare.

The first year will not clear it altogether. It must be followed up every year. Wherever a bit is seen, fork it up, and take it away, for if you leave it on the ground, it will take root again directly. Your correspondent in Alabama can try a few rods first, and he will be able to see if it is worth the expense.

As we are much put to it here for manure, we are obliged to grow green crops, say oats, buckwheat, and rape, and turn them in as manure, but the difficulty is to get a good plow for that purpose; can you recommend me to one of the best? Our soil is mellow, cuts easy, but adheres very much to the plow. F. P.

☞ Prouty's Centre-draft Plow is highly recommended for turning in green crops. At a late meeting of the Philadelphia Ag. Society, Dr. Emerson stated that he, in company with several other gentlemen, had recently seen a trial of the capacity of this plow for this purpose, and that its performance was highly satisfactory. The grass and weeds—the latter of which were from three to four feet high, were completely covered, six or seven inches deep; the ground afterwards presenting a fine, well broken, clean surface, requiring but little application of the harrow. The soil was a mellow, sandy loam. Will our correspondent favor us with an article on the Agriculture of Bermuda, embracing notices of the crops cultivated, manner of tillage, &c. ?—ED.

CULTIVATE YOUR FRUIT TREES.

The influence of the cultivation of the soil on fruit trees, appears to be less known and appreciated, than any thing else of the kind equally important, which has been practiced since the time of Hesiod and Homer. Persons who purchase fine fruit trees, appear to have more or less of five different objects in view, which are the following, to wit:

1. To kill the trees at once—2. To kill them by inches;

3. To keep them alive, with the hope that they may bear small and imperfect fruit in ten or twenty years;

4. To make them grow vigorously for a year or two, and afterwards neglect them, reducing the fruit to one-third in quantity and one-tenth in quality of what it should and might be.

5. To keep them well cultivated constantly during the term of their natural lives, and as a consequence receiving full crops, and of the most delicious quality.

1. Although many *appear* to pursue the first of the above named objects, they probably do not really intend it. They are however much more successful than they intend to be in killing their trees, by drying them in the sun, freezing them in the cold, bruising them, or otherwise treating them as already dead while life yet remains. A large number pursue this course.

2. Others avoid these attempts to produce death, but practice another kind, which is, to crowd the roots of the trees when setting them out, into very small holes dug in hard soil, and then to suffer them to perish gradually from such careless transplanting and subsequent lack of care and culture. A much larger number follow this practice.

3. Others again transplant *well*—but that is all. This done, they consider the whole work as finished. The trees are suffered to become choked with grass, weeds, or crops of grain—some live and linger, and others die from discouragement. An intelligent friend purchased fifty very fine fruit trees, handsomely rooted, and of vigorous growth; they were well set out in a field occupied with a heavy crop of clover and timothy. The following summer was very dry, and the grass crop crowded them hard on every side—most of them necessarily perished. The browsing of cattle the next winter completed the work for the rest—it would have been cheaper to have thrown them away at once. Another person, a neighbor to the first, bought sixty trees, of much worse quality in growth; he set them out well, and kept them well cultivated with a crop of potatoes. He lost but one in the sixty, and by pursuing the same course of raising among them, low hoed crops, his trees now promise to give him loads of rich peaches, before the dead stubs of the trees of his neighbor have disappeared from the grounds. Another neighbor last spring bought fifty fine trees. A few days since I passed his house, and he said to me, "I thought a crop of wheat was one of the best for young peach trees?"

"O no," said I, "it is one of the very worst; avoid all *sown* crops, and occupy the ground only with low, hoed crops, as potatoes, ruta-bagas, carrots, and the like."

"Well," answered he, "I have found it so—my fifty peach trees all lived, but I have lost one year of their growth by my want of knowledge."

I examined his trees—they had been well set out, in a fine soil, all the rows but one, had stood in a field of wheat, but the one excepted was hoed with a crop of potatoes. The result was very striking. Of the trees that stood among the wheat, some had made shoots the present summer *an inch long*, some *two inches*, and a very few *five* or *six* inches. On nearly every one that grew with the potatoes, new shoots *a foot and a half* could be found, and on some, the growth had been *two feet, two and a half*, and *three feet*. Other cases have furnished nearly as decisive contrasts.

4 and 5. An eminent cultivator of fine fruit, whose trees have borne for many years, says in a late letter, "My fruit garden would be worth twice as much as it is, if the trees had been planted in thick rows* two rods apart, so that I could have cultivated them with the plow. Unless fruit grows on thrifty trees, we can form no proper judgment of it. Some that we have *cultivated* this season, after a long neglect, seem like *new kinds*, and the flavor is in proportion to the size." Large trees often stand in thick grass, and poor crops and poor fruit can hardly fail to result; and the nurseryman who sold them is sometimes pronounced a scoundrel for having furnished such despicable stuff.

"But," exclaims some one, "are we always to be troubled with cultivating and taking care of our trees as long as we live?" Exactly. This is the condition of living and enjoying the fruits of the earth, which has existed these last six thousand years. Besides, if this labor gives a return of a hundred fold, who ought to regret it? If my orchard, yielding a hundred bushels now, of poor fruit, will, by putting a hoed crop and some manure into it, more than double its products, and greatly improve them in quality, where is my loss? Would it be grateful in me to complain of a little care and attention with so great a gain? Labor cannot be avoided, but it brings its reward. J. J. THOMAS

Macedon, 9 mo., 1844.

* The "thick rows" here spoken of, are meant to contain fruit trees standing six to ten feet apart in the row, so that the plow may be passed on each side parallel with the rows, the last few furrows in immediate contact with the trees to be plowed with two horses, one before the other, a boy riding the forward one. A very short whipple-tree should be used on the plow, and long traces attached to admit the plowman steering far to the right or left as necessity may require.

MONROE CO. AG. SOCIETY—RURAL ARCHITECTURE, &c.

FRIEND TUCKER—The Annual Fair and Cattle Show of our County Agricultural and Horticultural Society, took place in the city of Rochester, on the 8th and 9th inst. The exhibition, upon the whole, was tolerably good, but not what it should have been. The apprehension that this fair, at best, would contrast but meagrely with the brilliant and imposing pageant, and the successful results of the State Fair, which was held at this place the last year, instead of inspiring our farmers with renewed zeal (as it ought to have done) and arousing among them a more determined spirit of emulation, served rather to dampen their ardor, or at least to discourage their efforts.

The first day was principally occupied by the exhibition of stock. There was a very fair display of horses, some tolerable specimens of Berkshire hogs, and some very fine sheep of the Merino, South Down, Cotswold, and Paular Merino breeds—of the latter, there were several beautiful samples from the justly celebrated flocks of Mr. JEWETT, of Vermont. They were purchased and brought on here by Gen. HARMON, the enterprising President of our County Society, to improve his already highly cultivated flock. The show of cattle was quite slim. There were one or two pretty good Durham bulls, two or three fine yoke of oxen, but three or four cows that were passable, and of young stock, not over half a dozen head, or thereabouts, in all; among these, however, I noticed the full blooded Durham heifer (now owned by Mr. Sidney Allen, of this city,) which took the first prize at the State Fair, last year, as the best heifer calf—and yet this, probably the best blooded and most perfect animal on the ground, did not obtain a premium, because, as the committee stated, she had no competitor of the same blood. Mr. Latta, of Greece, had one or two very fine grade cows and heifers, nearly full blood Durham; and Mr. Smith of Brighton, had several good looking cows and heifers of the Holderness breed, (nearly pure,) the former said to be excellent milkers—one cow, in particular, it was stated by her owner, had given forty quarts a day. There were none, I believe, but grade cows, on the ground; there was not, to my recollection, a single pure Durham, Devon, or any other improved thorough bred cow, among them; *nor did I see a single cow of our native breeds.* Of this latter fact, at least, I think the farmers of our county ought to be ashamed; they, themselves, I have no doubt, would be slow to admit that they did not possess some as good native cows as any county in the State can produce; then why not bring them out and exhibit them with a statement of their dairy properties? If they have not yet made up their minds to adopt the thorough-bred, improved stock, on the ground that they consider their native breeds the best, why not bring them out and exhibit them side by side, so that all may see, compare and judge for themselves? For my own part, I have made up my mind from some little experience, and a good deal of observation, reflection and investigation, that the true policy for our farmers, in this matter, is to adopt the most approved breeds of thorough-bred, improved stock, such as the Durham, Hereford, Ayrshire, Devon, &c., then select out the *best* of our native stock, for the purpose of crossing or of comparison, and the remainder *knock on the head* and sell to the butcher; for all must admit that it costs no more (if as much,) to feed and raise a good animal, than a poor, mean one, that will not fetch, when it is three years old, as much as the straw it has ate would be worth for manure. But I am digressing.

If the meagre display of cattle at our Show, were to be attributed to the want of any other good stock in the county than that exhibited, the owners of several fine herds that were not represented at all, would be as provoked at the imputation as those present had reason to be at the absentees, for their negligence or want of spirit. I could name several owners of fine herds of improved cattle, who had not a single animal at the Fair, although the day was unusually pleasant and favorable.

The horticultural exhibition, on the second day, was very respectable, though not as extensive as it might and should have been. Of vegetables, there was a very good display; and also of some varieties of fruits, apples in particular. The productions of the dairy were somewhat limited. There was a goodly display of farming implements.

The address was delivered by Dr. LEE, of Buffalo; it was an able, scientific production, illustrating some of the more important principles of agricultural science, in a very clear, concise and intelligible manner. I meant to have given you a synopsis of its contents, but my limits will not allow of it; but as it is to be published with the transactions of our county society, you will have an opportunity of perusing it ere long. The list of premiums awarded, you will find in our city papers.

My thirst for the quiet luxury of rural life, with its invigorating, healthful, tranquilizing pursuits, does not abate in the least; it is growing into a ruling passion. There is more true satisfaction in planting and rearing one choice fruit tree—in making "two blades of grass grow where but one grew before," than in proselyting or colonizing a regiment of *political* parasites—and I believe it to be at least of quite as much *profit* to the best interests of our common country; and yet, if we were to contrast the overwhelming political gatherings which take place almost daily in our midst, with the recent slim annual ingathering of the farmers of our county, and that too, at their "harvest home" jubilee, one would be irresistably led to the conclusion that the great mass, even among our agricultural brethren, are more zealously bent on accomplishing the latter than the former of these objects. But another month will produce a "turn" in this political "fever," when, it is presumed, the body politic will have its healthful, legitimate functions restored.

I am making some improvements in my fruit, poultry, &c., and hope another year, to get my little "Rural Home Farm," in successful operation, with a small variety of the choicest stock, &c. I have got up a plan of a "Rural Home Cottage," which I design building on my place, next spring. It is in the "Rural Gothic" order, and an improvement, I think, as to beauty, simple elegance and convenience of arrangement, even upon the excellent and well-digested and tasteful designs of Mr. DOWNING, whose inimitable works on "Landscape Gardening & Rural Architecture," "Cottage Residences," &c., I have perused and re-perused with so much interest and delight, and I trust with no little profit also. My plans are drawn by Mr. AUSTIN, formerly of New-Haven, and an architect of rare taste and ability in his profession, as his elegant specimens of workmanship will abundantly testify. I will furnish you with the drawings for your valuable paper, if you wish it, and can find room for them, in some future number. Your efforts, and those of Mr. Downing and others, to disseminate among our rural population a more correct architectural taste, are in the highest degree commendable, and are doing much towards advancing that too long neglected improvement.

Rochester, Oct. 12, 1844. T. H. HYATT

MUSTARD SEED.

The Farmers' Cabinet contains a letter from C. J. Fell & Brother, of Philadelphia, by which it appears that our friend, J. H. Parmelee, Esq. of Duncan's Falls, Ohio, has reared the past season an extraordinary crop of brown mustard. Twenty-seven acres of land were appropriated to the crop. The seed was planted in rows one foot apart one way, and two feet the other. The crop was well worked during the season, and when near ripe was cut with sickles, laid on sheets or waggon covers, hauled to the barn in the sheets, and there threshed out and fanned.

The Messrs. Fell have purchased of Mr. Parmelee a part of the crop. One hundred and fourteen barrels, containing 382 bushels, weighing 52½ lbs. per bushel, making 20,100 lbs., for which they paid him 8 cents per lb., making,..... $1,608 00

Mr. Parmelee has 100 bushels of *tailings*, which he estimates to clean up 75 bushels, say 50 lbs. per bushel, making 3,750 lbs. at 8 cts.,..... 300 00

Giving as the product of 27 acres,..... $1,908 00
or $70 66 per acre.

CULTIVATION OF FRUIT—No. XI.

THE STRAWBERRY.

The varieties of this delicious fruit enumerated in catalogues, are very numerous. The late President Knight considered them all as having originated from one species, while others regard them as properly divisible into several species. Passing from the notice of these, it may be useful to cultivators in this country to give brief descriptions of the different classes into which the numerous varieties are divided. Mistakes in names are very frequent, and this may assist in rectifying them.

Class I. includes *scarlet strawberries*, and the general character is thus described by Loudon:—"Leaves nearly smooth, dark green, of thin texture, with sharp pointed serratures; the fruit mostly of small size, and bright color, with the seeds more or less deeply imbedded between ridged intervals; the flavor acid, with slight perfume." Examples, Roseberry, Methven Scarlet or Methven castle, Old Scarlet, &c.

Class II. Black Strawberries. The general character is, "leaves rugose, [or swollen between the veins,] pale green, and small; fruit conical, with a neck; seed slightly imbedded; flavor rich and highly perfumed." Examples, Downton, Pitmaston black, Elton seedling.

Class III. Pine Strawberries. "Leaves almost smooth, dark green, of firm texture, with obtuse serratures; flowers large; fruit large, varying from almost white to purple; seeds prominent on a smooth surface; flavor sweet and often perfumed." Examples, Keen's seedling, Carolina, Mulberry, Southborough seedling.

Class IV. Chile Strawberries. "Leaves very villous, hoary, with small leafets of thick texture, with very obtuse serratures; fruit large; seeds prominent; flesh insipid in the True Chile, and more or less so in the varieties which have originated from it." Example, Wilmot's Superb.

Class V. Hautbois. "Leaves tall, pale green, rugose; scapes tall and strong; fruit middle-sized, pale greenish white, tinged with dull purple; flesh solid and musky."

Class VI. Green Strawberries. Characterised as the *Fragaria collina & F. viridis* of botanists, the varieties of which are little known and not of much value.

Class VII. Alpine or Wood Strawberries. Characterised as *F. semperflorens & F. vesca.* Examples, Red and White Alpine, Red and White Wood.

The following are descriptions of some of the best varieties:

Old Scarlet, Early Scarlet, or Early Virginia; fruit middle-sized, globular, of a very light scarlet color, seeds deeply imbedded, flesh pale, and very highly flavored. Although not a great bearer, yet highly deserving cultivation, as it ripens several days earlier than any other.

Grove End Scarlet, or Atkinson's Scarlet. Fruit large, roundish, somewhat hemispherical, brilliant scarlet, flesh pale, with an agreeable sub-acid flavor. Remarkable for the wide serratures of its leaves. A good bearer and early.

Roseberry. Fruit large, conical, with a very short neck, dark red; flesh firm, pale scarlet, with a rich flavor. An abundant and long-continuing bearer.

Methven. Fruit very large, round, sometimes coxcomb shaped, bright scarlet; flesh pale and not firm; flavor good, but not so rich as the preceding. Sometimes weighs upwards of half an ounce.

Downton, or Knight's seedling. Fruit large, with a neck, often assuming a coxcomb shape, dark purplish scarlet; flesh scarlet, firm, with a rich, juicy, and high flavor; a good bearer, ripening late. Requires good culture.

Elton seedling. Fruit large, ovate, often compressed or coxcomb shaped, and not filled out at the end of the berry, shining, dark red; flesh fine deep red red, firm, juicy, with a sharp rich flavor; fruit on long footstalks, frequently projecting above the foliage; ripens late; must be allowed to remain on the stem till it becomes very dark colored, to avoid too great acidity.

Keen's Seedling. This variety requires protection in the winter by a covering of straw, and is somewhat difficult of cultivation; but when it succeeds well, it is an abundant bearer, and has a very fine appearance. The fruit is very large, ovate, the largest of a coxcomb shape, dark shining red, especially next the sun; flesh scarlet, firm, of a rich and agreeable flavor; ripens rather early in the season. It is considered the best strawberry for forcing.

Wilmot's Superb, is only to be recommended for its great size; the fruit is round or irregularly ovate, sometimes compressed, pale scarlet, shining; seeds projecting; flesh pale red, nearly white, and wooly at the center; flavor moderate.

Prolific or Conical Hautbois, Hudson's Bay, double bearing, Musk, or Spring Grove. Fruit medium size, (large for this class) conical, very dark dull red, inclining to purple on the sunny side; flesh greenish, rather dry, but of a rich and highly perfumed flavor. An abundant bearer. Considered by some as the finest of all strawberries. According to the London Horticultural Society's Catalogue, "of all strawberries, the hautbois are the most variable. They certainly retain a general character, from which they naturally do not depart; but constancy of character in varieties, denominated as distinct, is but little to be depended upon; the fruit will occasionally change from globular to ovate, and the contrary, while fertile plantations will produce runners that may, perhaps, be sterile, and seedlings, many of which will certainly prove so. The latter ought to be carefully looked after and extirpated, which can be only effectually done in plantations newly formed while the plants are single, and at the time they are in blossom. It is also necessary to observe, that in all the sorts of hautbois here enumerated, there exist both the *Prolific*, and also these sterile plants commonly called *Males*, which have *long stamens*. The latter ought, in all cases, to be certainly destroyed." The sterile flowers are distinguished in all the varieties of the hautbois by their long stamens, except in the *Prolific*, which also has long stamens; from *this* they are distinguished by their smaller flowers, and imperfect fructification. Thompson, in Loudon's Encyclopedia of Gardening, says: "I believe there is no such thing as distinct plants of male and female hautbois. Stamens and pistils are to be found in either a *perfect* or *imperfect* state in every individual flower. Imperfection generally takes place in the pistil, together with the receptacle. To see that these are sound is all that is necessary to be attended to."

Red Alpine. Fruit, the largest of this class, conical, red; flesh sweet and high flavored. Bears abundantly in suitable soils and situations, from early in summer till late in autumn. I have seen a dish of them on the table picked the first day of the twelfth month (December.) The *white alpine* is similar to the preceding, except the fruit is white instead of red. These two varieties are frequently grown promiscuously together.

The Red Wood and *White Wood* resemble the alpine, but the fruit is smaller and rounder.

The Bush Alpine is distinguished by not spreading by runners. It is not so good a bearer as the red and white running alpine, nor is the fruit quite as good.

The following is nearly the order of succession in which the preceding varieties ripen, except the alpines which continue in succession.

Old Scarlet,	Prolific Hautbois
Grove End Scarlet,	Wilmot's Superb
Roseberry,	Downton,
Keen's Seedling,	Elton Seedling.
Methven,	

A. J. Downing, in Hovey's Magazine, says, "The finest of the large English varieties of this fruit which we cultivate here, is the Bishop's. It is remarkably large, a most abundant bearer, and of superior flavor. It appears to us to unite all that can be desired to constitute a truly fine and delicious strawberry." Hovey's Seedling, for size, productiveness, and excellence of flavor, is recommended as one of the very finest by those who have thoroughly tried it.

Modes of Propagation. Strawberries multiply rapidly during their growth, by runners from the parent plant, which, rooting at every joint, form numerous new plants. To form new plantations, these need only to be removed to the bed where they may flourish. This work may be done early in autumn, or early in the spring; the former is best. If done in autumn, care should be taken

that the plants are not thrown out by frost, especially on heavy soils. This may be prevented by treading the soil closely about the roots before the ground becomes frozen. Such beds will bear some fruit the summer following the transplanting, and will furnish an abundant supply the second season. The alpines produce well in one year.

The only exception to this mode of increasing, is the Bush Alpine, which never increases by runners; the only way for this variety is dividing the root, and transplanting as above described.

Strawberries are only propagated from seed for producing new varieties, except the woods and alpine, which, says Loudon, "come regular from seed, and bring a finer fruit than from offsets."

Soil and Situation. The best soil for the strawberry is a deep rich loam, though it will succeed and bear on any soil which is fertile. The situation should be open and well exposed to light and air. It succeeds very well when planted in single rows as edgings. The alpine and wood strawberries may be placed in a more shady situation than the others; it is during hot and dry seasons of the year that they are intended chiefly for bearing. They are consequently well adapted to edgings for shrubbery. When the soil is rich, the advantages of employing strawberries for edging is great, as they succeed in such soils much better when in single rows than when crowded together in a bed.

General Culture. A very general error is to plant too near together, especially if the soil be fertile and well prepared. *Thorough* culture is by far the best, at the same time that it is, ultimately, the *cheapest* method. It is true that on common rich garden soils, a bed may be transplanted which will produce fine fruit and good crops with little care after once prepared; we have known beds to yield plentifully which were almost untouched for years, not even having been weeded, the thick growth of the strawberry keeping down in a great measure, every thing else. But by the following thorough mode, or one similar, practiced by Keen of Isleworth in England, who first raised the celebrated variety known as Keen's seedling, the greatest amount of fruit may doubtless be obtained for the care and labor expended, while the quality is greatly superior. The soil for this mode of culture, should be plowed or trenched deep, and mixed with decomposed stable manure; if the subsoil be somewhat sterile, it should not be thrown to the surface. The ground should be prepared at least a month before transplanting. "The best way," says Keen, "to obtain new plants, is, by planting out runners in a nursery, for the express purpose, in the previous season; for it is a very bad plan to supply new plantations from old plants." The distances of the rows asunder are about two feet, and eighteen inches in the row, for the large varieties, as Methven and Keen's seedling; the smaller varieties may be a little nearer. This distance may seem too great, but it is necessary for sun, air and culture. "These large distances," says Keen, "I find necessary; for the *trusses of fruit in my garden ground are frequently a foot long.*" This fact is a sufficient proof of the excellence of his mode of culture. "After the beds are planted, I always keep them as clear of weeds as possible, and on no account allow any crop to be planted between the rows. Upon the growing of the runners, I have them cut when necessary; this is usually three times in each season. In the autumn I always have the rows dug between; for I find it refreshes the plants materially; and I recommend it to those persons to whom it may be convenient, to scatter in the spring, very lightly, some loose straw or long dung between the rows. It serves to keep the ground moist, enriches the strawberry, and forms a clean bed for the trusses of fruit to lie upon; and thus by a little extra trouble and cost, a more abundant crop may be obtained. A short time before the fruit ripens, I always cut off the runners, to strengthen the root; and after the fruit is gathered, I have what fresh runners have been made, taken off by a reaping hook, together with the outside leaves around the main plant, after which I rake the beds, then hoe them and rake them again. In the autumn, unless the plants appear very strong, I have some dung dug between the rows, but if they are very luxuriant, the dung is not required; for in some rich soils it would cause the plants to turn nearly all to leaf. I have also to remark, that the dung used for manure, should not be too far spent; fresh dung from the stable door is preferable to spit dung, which many persons are so fond of." The writer has found great advantage, both as a matter of economy of labor, and for the increase of productiveness, to set out strawberries in long rows about two or two and a half feet apart, and ten inches apart in the rows, so that they may be cultivated with a horse. The difference between suffering a bed to become thickly matted over, and keeping the plants or hills well hoed separately, is almost incredible to one who has not seen it. A half pint of the largest and finest strawberries from one hill is easily thus produced.

The strawberry, though never diœcious, from an imperfection in the fructification contains fertile and barren flowers in most varieties, except the Alpine and Wood. The barren plants are the most vigorous and productive of new plants; and in some cases will overrun and crowd out the fertile ones. Hence the unproductive state of many beds of fine varieties where this has taken place. A few sterile plants, perhaps one-tenth, are necessary to cause fertility to the others; for the proper management of which, see an article on the culture of the strawberry on page 247, current volume of the Cultivator.

In England, where the climate is much more moist and less hot than here, decided advantage is found in watering strawberries during hot weather.

Beds, once prepared, generally continue in a good bearing state from three to five years. J. J. T.

CAUSE OF ERGOT.

EDS. CULTIVATOR—I infer from your article on ergot in a former number of the Cultivator, that the late investigations of M. Debourge on the cause of this curious phenomenon, have not fallen under your notice. I therefore take the liberty to send you an account of them from the Home Examiner.

The grains in which it appears first, soften, become very friable, and undergo a species of fermentation, exhaling at the same time a very disagreeable smell. Their outer surface is now seen to be intersected with many small furrows, moistened by a whitish, viscous and saccharine liquor, which reddens turnsol-paper. This liquor exudes in greatest quantity from the summit of the grain, where it agglutinates together all parts of the inflorescence. At this period, the perisperm becomes every where destroyed, except towards the summit, where it is the cause of the greater consistence of the ergot. The outer surface, previously white, now becomes brown, and afterwards black, first in the inferior portion, and then throughout the rest of the grain. The furrows disappear, the grain elongates, and it soon emerges from its outer covering (the glume) in all its distinctive characters. Thus, the formation of the ergot presents two distinct epochs; the first comprising the destruction of the perisperm, the softening, and the saccharine fermentation of the grain; and the second, the period of its assuming its deep color and morbid enlargement.

It was formerly supposed that the ergot was the result, jointly, of a mal-development of the germ, and the presence of a parasitic fungus, which, though still hypothetical, has been denominated by some French authors, *sphacelia segetum*. But what was considered by these to be the fungus at the superior extremity of the grain, is now shown by M. Debourge to be only the undestroyed portion of the perisperm, with some part of the hairy epitheluim, the decayed stigmata, and sometimes anthers entire, agglutinated together by the viscous discharge. M. Debourge naturally asks how it is that a parasitic body should become marked with a similar longitudinal wrinkle, and covered with the same hairy epitheluim, as the grain? The ergot invariably begins to form some time after the inflorescence of the rye and other gramminæ, and for the most part on the grains which are most tardy in their development. N. N. D.

We ought either to be silent, or to say what is better than silence.

CONTINUANCE OF MILK IN COWS.

MESSRS. EDITORS—It certainly would be a very great advantage to those who wish to keep a cow or cows, solely for their milk, if any feasible method could be adopted by which cows could be made permanent milkers, or their owners, particularly those who live in cities, be saved the trouble and inconvenience of their breeding. There are two ways in which this seems practicable. The first method is to keep the cow in milk, from the bull, by constantly stabling her, after her first and second calf, and in this state, milked regularly and well fed, she will continue to give milk for two or more years. She usually ends, however, by becoming too fat for profit as a milker, her milk gradually failing, and she then goes to the butcher. The large dairies of London, have their cows treated in this manner, and in practice it is found far preferable to the old one, of having them "*come in*" annually.

There is another method of obtaining constant milkers which has been extensively practiced in France, and known to some extent in this country. This is by *spaying the cow* some four or six weeks after calving, and thus by preventing impregnation, securing the cow in milk for several years. In the London Veterinarian may be found a paper by M. Rogere of Bordeaux in France, who had for many years been engaged in a series of experiments on this subject, that had been eminently successful. The cows operated upon were of various ages, some quite old. The operation of spaying was followed with a restricted diet to prevent the tendency to inflammation. This had the effect of reducing the quantity of milk for a few days, but the flow soon returned, and continued unaffected for a long time. No danger was incurred by the operation when skilfully performed, and when from age or failure of milk, it became desirable to make beef of the animal, she was found altogether superior for that purpose to the unspayed ones.

In one of the earlier volumes of Ruffin's Farmer's Register may be found a paper on spaying cows or heifers, not only for milk, but for feeding. Mr. Tabb of Virginia, under whose superintendence the operations were conducted, confirms the representations made of the value of milch cows so operated upon, but thinks it not less essential or important where cows or heifers are to be fed. The following extract is from Mr. Tabb's paper. "The operation is performed on heifers not intended for milk when they are about a year old, and with the single precaution of keeping them entirely from food or water during twenty-four or thirty-six hours previous—is not attended with the least risk—is performed in the same way, and may be done by any person in the habit of spaying pigs. They go to their food immediately after, and require no attention. We select the most indifferent heifers to spay, which is one way to improve the stock. You increase the size amazingly. They gradually become as large as ordinary oxen—are easily kept—make the finest beef—and as they are not in perfection until six or seven years old, we work them after three or four, to make them gentle, and for that purpose, consider them superior to the ox."

The practice of working milch cows is common in Germany, as appears from the accounts of various travellers in that country; and teams of spayed heifers have carried off prizes at the plowing matches of Agricultural Societies in England. The suggestion made above, by Mr. Tabb, as to the practice of spaying having a good effect in the improvement of stock, is an important one. If the breeders of stock could so far forego the hope of immediate profit, as to be willing to submit all inferior, or part blood bull calves to castration, and all inferior heifers to spaying, it is evident the chances of breeding inferior animals, would diminish rapidly.

Mr. Winn, keeper of an extensive hotel at Natchez, communicated to Judge Peters, of Pa., the result of experiments made by him in spaying cows for the purpose of securing permanent milkers. It appears from the paper as given in the Transactions of the Penn. Ag. Soc. that he had two cows, which after being spayed, gave milk constantly for three years each. He preferred cows that had produced two or three calves, as the bags of such would be more capacious, than if spayed after the first calf. I hope some of our breeders or farmers will try this experiment, since if successful, there can be no doubt such cows would command greatly advanced prices in places where cows are kept for their milk alone.

Ontario, Oct. 1844. A FARMER

IRRIGATION, &c.

MR. TUCKER—As far as my information has extended, very few attempts to adopt a systematic course of irrigation, even on a moderate scale, have been made by the farmers in Massachusetts, at least in this vicinity. Some years since, Gen. Wm. Hull, residing at Newton, attempted to carry on a course of irrigation, by bringing a stream of water which took its rise in his estate, into his garden and grass lands; by constructing a bank of sods on each side of it, to sustain the stream, and by merely letting down one or two sods from it, whenever he wanted to bring the water on to his land.

According to the information which he gave me, his grass lands were rendered much more lucrative and valuable by means of the irrigation. Land, which previous to it, produced a worthless grass of little or no use, was made to yield one and two tons of good grass to the acre. I was informed that he was obliged to abandon the scheme from the great injury which it caused to one of his neighbors.

EXTENT OF IRRIGATION NEAR ROUSSILLON.—It is said that there is an extent of land, 10 leagues in length by 6 leagues in breadth, all of which can be regularly irrigated by means of small canals and water courses, which are cut in every direction. The distribution of the water is regulated by law. The habitations are still, for the most part, congregated in small towns and villages, but here and there a detached house is to be seen. The plain is covered with trees, which border the water courses in every direction. Among these, the Lombardy poplar is conspicuous.

CULTIVATION NEAR SEVILLE.—The principal exports from Seville are bitter and sweet oranges and lemons. The sweet oranges are more cultivated than the bitter. The orange groves are estimated of great value. The trees are planted at the distance of 21 or 22 feet each way, and in good years, will yield from 1,000 to 1,200, and even 1,500 oranges each. They are irrigated every ten days, and the soil is disposed in small trenches to allow the water to spread. WM. JENNISON.

Cambridge, Mass., Oct. 12, 1844.

KILLING BUSHES—"OLD OF THE MOON IN AUGUST."

On page 42 of the February number, you give Mr. A H. Hallock's method of cutting briers, "in the old of the moon in August, and the sign in the heart." Now, while it is true that agriculturists have to do with the earth and its productions, rather than with the moon and its changes, yet it is a *fact*, that the *time* specified, (I know nothing about the location of the sign,) is the very best time in the year to kill not only briers, but all kinds of bushes. I have tried it frequently, and they will sprout less, and the sickly feeble shoots are easier killed if cut "in the old of the moon, (or between the last quarter and the new moon) in August," than at any other time in the year. The reason probably is that the sap moves sluggishly, and is then mostly above ground, leaving the roots with less of the reproductive power than at any other season. Of course they are more apt to die. It is well known that bushes cut at some seasons, throw up a very thrifty second growth. This will be the case when the most sap is in the roots, or at least when the sap is in most rapid circulation.

Now whether this be the true explanation or not, it is yet a fact tested by much experience, that the very best time to kill bushes, briers, &c., is "in the old of the moon in August." And wise men, with no disposition to be carried away with "moon struck theories," will nevertheless govern themselves accordingly. H

Ohio, Oct. 1844.

PEDIGREES OF COL. RANDALL'S MERINO SHEEP.

EDITORS CULTITATOR—I often receive inquiries, and sometimes from editors, in relation to the pedigrees of my Merino Sheep. Though not voluminous, they are too much so, to be daily copied for such applicants.

I will furnish such pedigrees to any editor who will accompany his request with a distinct intimation that he will publish them as they are forwarded, entire and unmutilated; or to any other individual to whose published request, an editorial pledge of the same kind is appended.

Yours truly, HENRY S. RANDALL.

Cortland Village, Oct. 12, 1844.

HOLLOW HORN.

It is familiar to farmers that when any animal has been subject to this complaint, that upon the return of winter the complaint will return again frequently. The complaint may often be kept off in such cases, simply by wrapping the horn with woollen cloth or sheep skin with the wool turned inwardly, and keeping it well bound on through the winter. As soon as the horn begins to become carious, it becomes internally sore, and it sometimes happens that all efforts to save an animal afflicted with this complaint are ineffectual, merely for the want of wrapping the horns, and thereby imparting that warmth to the parts intended to be healed, which all know is necessary for any wound or sore in winter in order to heal it. C. D.

PEPPERIDGE TIMBER.

Pepperidge is occasionally used to make an ox yoke, but more generally is consigned to the fire as useless for any other purpose—whereas it ought to be known that it is one of the best, if not quite the best article for bedsteads which grows in the northern states. It works smooth, and when oiled and varnished, or when stained and varnished, shows the curl of the wood and looks almost as well as curled maple. C. D.

MONTHLY NOTICES.

SHEEP ON THE PRAIRIES.—The Western Cultivator, printed at Indianapolis, Indiana, says that up to the 25th of August, 25,000 sheep had passed through that place on their way to the Western Prairies. In the same paper, we find a communication from GEO. FLOWERS, Esq. of Albion, Ill., in which he states that he has just returned from a three months tour in Virginia, Pennsylvania, Ohio and Indiana, whither he had been to select and purchase eighty of the best rams and 3,600 ewes. He urges the formation of a "Western Wool Growing Company," by whom a permanent system of improvement in sheep, might be undertaken, which would prove alike profitable to the Company, and beneficial to the public. The subject is worthy of consideration.

WINTER PROTECTION FOR STRAWBERRIES.—A writer in the Boston Cultivator says he has tried covering with manure, leaves, sea weed, boughs, and "all other kinds of loose covering;" but they did not answer. The leaves would blow off, and mice would get under and destroy the plants. He recommends cleaning the beds well from weeds, and about the last of October or first of November, put on from one to two inches of rich loam or old compost, made with muck, and a small quantity of manure, such as has no seeds of weeds and rake it in equally, being particular to have the plants covered so as only to present the centre leaves; this protects the roots and tops, and in the spring the beds and borders are all ready for them to grow, and will not need any cultivating until the plants are in blossom, and until the middle of May, and then with a fork about six inches wide, with three round stiff prongs 10 inches long, blunt and round at the end of the prongs, stir the soil.

DESTRUCTION OF THE APHIS AND SHEEP TICKS.—A writer in the Mass. Plowman says he has succeeded well in killing the aphis or plant louse on trees and shrubs, by smoking them with tobacco, mixed with a small quantity of brimstone. The smoking did not apparently injure the leaves or stem. His process of smoking is simply to take one of those boxes in which ground mustard comes packed, (say half pound boxes) in the lid of the box, have a tube soldered in, of such size as will fit on to the nose of a bellows; in the bottom of the box put another tube similar to the one in the lid, fill the box with tobacco, (no matter how poor) turn into the box a little water to prevent the tobacco from burning too rapidly, put in a coal of fire, fix on the lid, which is attached to the bellows nose; you can then smoke to your liking.

We have often smoked sheep with an apparatus like this, to kill ticks. In the winter or spring when the wool is long, and the weather is too inclement to justify dipping sheep in a liquid, smoking is the best plan that can be resorted to, and if well done, is quite effectual. Smoke seems to be very deadly to insects in general, and we do not see why it may not be used to good advantage in killing plant lice.

THREE HUNDRED SPINNING WHEELS IN OPERATION ON BOSTON COMMON.—In an Address delivered before the Caledonia (Vt.) Agricultural Society, by HENRY STEVENS, Esq., in which the importance of affording suitable encouragement to domestic manufactures, is very forcibly set forth, the author says:—"We find in the American Annals, an account of the anniversary of a society for encouraging industry, held 1753, on which occasion Boston common presented a novel sight. In the afternoon, about 300 young female spinsters, decently dressed, appearing on the common at their spinning wheels, the wheels were placed regularly in three rows, and a female was seated at each wheel; the weavers also appeared cleanly dressed, in garments of their own weaving. One of them working a loom on a stage, was carried on men's shoulders attended with music: an immense number of spectators were present at this interesting spectacle. The Rev. Dr. Cooper preached a discourse, and a collection was made for the benefit of the institution. Ladies of Boston whirling three hundred spinning wheels! These were afterwards the matrons who refused British tea, and who never saw a piano. Wonder if a thousand delicate ladies could not now be seen in the city, at their pianos, where one old fashioned rosy damsel could be found at the healthy exercise of the spinning wheel?"

Mr. Stevens adds—"The woman who manufactures for her own household, and one piece of goods to sell, does more to retain the solid coin in our State, than all the banks or the greatest financiers."

GOOD ADVICE.—"A Burke Planter," in the Southern Cultivator, says—"We must begin at once the practice of frugality and economy. We must combine farming with planting; produce all that is practicable at home, and no longer permit ourselves to be furnished with any of the means of support or of labor from beyond the mountains. But first of all, we must turn our undivided attention to our own business; study fully the theory of our pursuit, and practically apply its principles. We must test the discoveries and improvements that are constantly being made, and by original experiments, add to the knowledge of the country. It is erroneous to suppose that planting is an easy and indolent vocation. Properly pursued, it is one of the most arduous; demanding untiring activity and energy to regulate the negroes, divide and task them judiciously, designate work, mode of doing it, and to observe from day to day that it is correctly done; attend to stock; the manure pit; the experiments going on; with many other matters depending on the variety of his collateral works. And exacting constant mental exertion to acquire a knowledge of all the physical sciences, so indispensable to enlightened and successful planting, and to keep pace with the improvements in the country; and a cultivated judgment, to investigate the thousand theories that are broached, to experiment, to compare facts, to combine and to apply them. And while the overseer may be exempted from very much of the mental labor of the owner, his physical activity should be increased· his time, his efforts, and his thoughts, should be devoted to the welfare of his employer, and he should take the deepest interest in every operation tending to promote it"

MAKING COMPOST.—The great art of obtaining good crops, consists in the saving and application of manure. Of this truth, very many farmers are beginning to be convinced, and they are contriving various ways to save and increase their manures by the addition of such materials as will absorb those portions which have hitherto been wasted. The N. E. Farmer thus describes the course pursued on the farm of J. S. C. Green, Esq. at Watham, Mass. by Mr. R. Murray:—"The urine from the cattle is all saved and conveyed to a cistern underneath the stable, that holds about nine hogsheads. The floor of the stable is sprinkled with gypsum, every morning after the cattle have been turned out, and the stalls cleaned. The solid manure is also thrown into the cellar below, which is accessible to the hogs. The manner in which the urine is disposed of is as follows: As often as the cistern is filled, a lot of well pulverized meadow mud, or peat, which had been exposed a year, containing 18 common cart-loads, is made into a broad flat bed, with the sides raised up so as to retain the liquor; into this basin the contents of the urine cistern is discharged. As the liquor soaks into the peat, six bushels of ground plaster is spread over the surface, to fix the ammonia; the whole bed is then thrown up into a compact form, four or five feet high; stakes are thrust down into the middle of the bed, that some idea may be formed of the temperature of the heap from time to time, which is examined often, that the mass may not get overheated and burnt, as it may be very much injured or be made nearly worthless; by withdrawing the stake, an experienced person will ascertain very nearly the state of the bed by the heat of the stake; but this is not left to uncertainty; a thermometer is inserted in the hole repeatedly, and when it indicates 90 degrees, the fermentation is deemed sufficient; the heap is then shoveled over, and spread a little, and having remained a week in this state, is ready for application, or to be put under cover for future use. Compost from night soil is made in the same way."

FATTENING HOGS.—Fatting hogs must now have as much as they can eat; they should be urged forward as fast as possible before cold weather comes. They will gain more in one week now, than in two weeks three months hence. There is much in the garden now that may be added to the mush for hogs. Pumpkins, refuse squashes, cabbages, apples, potatoes, &c., may be boiled up or occasionally fed out raw, just for variety—for pig is a gentleman that prefers a variety of dishes and a good dessert. Give him, also, your greenest corn, cutting up cob and corn and stalk, an inch or two long. He will eat up all clean, while they are novelties in his pen. After all, your main stay for fatting him up, is grain of some kind. Indian corn ground, is best. Buckwheat comes next; rye is good, mixed with Indian; and oats always make the breakfast relish well. You should bear in mind to let your hogs have charcoal every year; therefore we name it that you need not suppose what was said and done about it last year, will answer for this. A little brimstone, too, is good—and brimstone need alarm no one since we keep it to whiten straw with.—*Mass. Plowman.*

APPLE POMACE.—Let this not be wasted. If considered of no value as food, let it be incorporated with the materials in the hogs' yard, or put in heaps, spreading lime plentifully over each layer of a foot or less of pomace, and, mixed with other manure previous to being applied in the spring, it will well repay for whatever care has been bestowed upon it. We have known cases where it has been thrown away as worthless—the farmer declaring that as food it was hurtful to his stock, (probably from being allowed to eat too much of it,) and that for manure it was of no sort of value, being "poor, sour stuff." Its sour quality is the sole cause of it worthlessness as manure: get rid of this—neutralize it—as you can by the process above recommended, and it becomes a fertilizer of soil and a nourisher of vegetation.—*N. E. Farmer.*

"In an experiment in Maryland in feeding hogs with shelled corn, and half the quantity in meal made into mush, those pigs fed on the mush, weighed five pounds heavier in a given time, than those fed on the raw corn, and their coats much better."

MADDER.—The amount annually paid by this, to foreign countries, for this article, used in dyeing, is perfectly astonishing. Mr. Ellsworth, in his report, estimates the amount annually imported at five thousand tons! The wholesale price is now from fifteen to eighteen cents a pound. At fifteen cents the annual importation amounts to the round sum of one and a half millions of dollars, for an article that can be produced as good and as cheap at home. This is not theory. Mr. Joseph Swift, of Erie county, Ohio, planted nine acres, and allowed it to grow four seasons, and the crop was harvested and sold in 1842, and an account given of it in the New Genesee Farmer, for March, 1843. The product of the best land was two thousand pounds per acre, (and he is certain that with his present knowledge he can produce three thousand pounds per acre.) The labor required per acre to raise and prepare the crop for market, was from eighty to one hundred days' work, and his figures show, after paying for the labor and use of land, a nett profit of two hundred dollars per acre. Although the crop requires several years to arrive at maturity, and needs considerable knowledge and labor, yet the value of the crop is greater in proportion to the cost and the quantity of land it occupies, than any other farm crop that can be named. Our farmers should give more attention to the cultivation of this article, while the profits are so great.—*West. Farm.*

SHOVEL IN THE MUCK.—The present time is favorable for those who have a *muck mine* and are desirous to avail themselves of its benefits. The effects of decomposed muck are now so well understood, that there are very few farmers who are not desirous of laying in a good store of it for future use. No better raw material can be found for hogs to operate upon and convert into the best of manure. A worthy old farmer of our acquaintance, makes it a rule to hire a hand for a month in the fall—furnish him with a cart and yoke of oxen, and keep them all at work hauling muck. In this way he lays in a large supply, and in the spring has a large quantity of excellent dressing for his land. He says he cannot invest the amount of the man's wages and service of cart and oxen in a more profitable way. Perhaps some of our readers who have never thought much of this plan may be induced to adopt it.—*Maine Far.*

A GOOD PLAN OF MAKING MANURE.—A writer in the Southern Planter recommends the following plan of making manure, of which we highly approve:

"Have a pit thirty or forty feet square, and two or three feet deep, with a good bank around it. In this pit let the materials, viz: oak leaves, pine tags, earth, &c., be put in suitable layers; on which throw all the slop-water, soap-suds, yard-sweepings, as ley, contents of chambers, and in short, every thing that can be conveniently got together. It may be at any convenient distance from the kitchen, so that the slop-water, soap-suds, &c., may be conducted to it by a trough. Be sure that no water gets into it in any other way. If at any time it should become offensive, start your teams immediately and cover it with *sand* or earth sufficient to prevent the escape of any effluvia." We say we approve of this plan of making manure; but we think it might be improved by sowing plaster over each layer of the materials of which it is composed, and occasionally, say at intervals of two or three weeks, sowing it over the surface, by which means all unpleasant smells would be avoided, and the enriching gases saved to fatten the land. Any pit which may be made for the purpose should be protected from the weather.—*West. Farmer.*

FOR SALE.

15 SAXONY BUCKS, raised upon the farm of the late Elam Tilden, can be had at reasonable prices, by applying to Col. Tanner, on the premises. M. Y. TILDEN, P. M.

New Lebanon, Columbia Co. N. Y. Sept. 7, 1844—1t.

IMPROVED STOCK.

THE subscriber has now on hand and will sell, at fair and reasonable rates, several Durham cattle, consisting of cows, heifers and calves; also two bulls, a cross of the Durham and Ayrshire stock.

SOUTH DOWN SHEEP.—Two yearling bucks, several buck lambs and 16 ewes from 3 to 4 years old.

All letters, (post paid,) will be punctually attended to. Address

C. N. BEMENT,

September 1, 1844. *American Hotel, Albany*

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☞ ADVERTISEMENTS inserted in the Cultivator, at $1,00 per 100 words for each insertion.

SHORT HORN DURHAMS FOR SALE.

ONE or two Heifers three years old, in calf by the prize bull Meteor, and one yearling and one two year old Heifer. The two latter were got by the imported bull, Duke of Wellington—also a fine bull calf, now about 6 months old got by Meteor. GEO. VAIL.

Troy, Oct. 25th, 1844.

HIGHLAND NURSERIES,
NEWBURGH.

THE subscribers, from their extensive nurseries, offer for autumn planting, all the finest varieties of fruit trees suitable for this climate. The constant practice here of proving the sorts by bearing specimens enables them to guarantee the *accuracy of the different fruits* cultivated; and the soil and exposure of the nurseries are such as give the trees peculiar advantages in point of vigor and hardiness when transplanted.

Ornamental trees and shrubs, Roses, Grape Vines, Raspberries, Strawberries, Washington Thorns and Buckthorns for hedges, together with all other trees and plants for hardy culture. Also Downing's Colossal Rhubarb, a new variety, larger and more succulent and tender than the Victoria. $1 each.

Descriptive priced Catalogues of the whole collection furnished by mail on post paid application. A liberal discount made on wholesale orders. Address A. J. DOWNING & Co.

Newburgh, Oct. 1844.

FARM FOR SALE.

THIS farm lies in Alexandria County, D. C., six miles from the Washington Market House, and three and a half from Georgetown. It contains two hundred and thirty-nine acres; from seventy to eighty in low land meadow, and from eighty to ninety in excellent timber, with a comfortable dwelling, good barn, ice house and dairy. Lime, which has been used already with fine effect, can be procured very cheap within three miles. It can be conveniently divided into two farms and will be sold upon accommodating terms as to price and credit. Apply to T. L. RINGGOLD.

Washington City, D. C. Oct. 1844 1t*

SOUTHERN GRAPE VINES, WINE, AND DIVERS NURSERY ARTICLES.

THE subscriber has a pretty large supply of more than 100 choicest American varieties of well rooted grape vines, (mostly Scuppernong,) at from 10 to 30 dollars per hundred according to age, size, &c. Cuttings of such as succeed from them (the Scuppernong do not, though well by grafting,) at rates of 30 dollars per thousand. Some 20 barrels (not including a new large vintage,) of best pure American wines at medium prices of a dollar a gallon. And divers nursery articles peculiarly fitted for southern culture at lower than northern prices. Important for more southern patrons to send orders (with remittances) soon. SIDNEY WELLER, P. Master.

At Brinckleyville, Halifax county. N. Carolina, Nov. 1. 1t.

SUPERIOR FARMS FOR SALE.

TWO superior productive farms in Rensselaer county, 2 miles from Hoosic Falls. The farms are about one hundred acres each, and so situated as to be conveniently worked as two or one farm: each having the necessary buildings, and being judiciously divided into pasture and tilled land, all recently fenced with entire new materials in the most durable manner. The land is all of the first quality, and its present state of cultivation would bear a good comparison with any land in the county. These Farms will be sold together or separate, on terms most accommodating as to price and credit. Apply to

Lansingburgh, July 16, 1844. ALEXANDER WALSH

RENSSELAER INSTITUTE.—TROY.

THE Winter Term of this Institution will commence on Wednesday, the 6th of November next.

The following is a brief view of the branches pursued in the Institute:

1. Theoretic Mathematics.
2. Practical Mathematics, with special application to Surveying, Navigation and Civil Engineering.
3. Natural Philosophy, including Mechanics, Hydrostatics, Hydraulics, Pneumatics, Optics, Electricity, and Magnetism, with their applications.
4. Chemistry, experimental and practical. This science will be taught and illustrated with particular reference to Agriculture and the Arts.
5. Natural History, including Botany, Geology, Mineralogy and Zoology.
6. Occasional lectures will be given on subjects pertaining to Taste, Morals, and the Christian Religion.

Besides the courses of lectures by the Faculty, each student is required to give lectures on the branch of science which he is pursuing, illustrating his subjects—in Mathematics and Natural Philosophy by surveys, measurements, observations or experiments of his own—in Chemistry with experiments performed by his own hands—and in Natural History, as far as possible, by specimens of his own collection; and he thus acquires theoretic and practical knowledge, as he is explaining it to others. In this method of instruction, it is hardly possible for a person to pass through the appointed lectures, illustrations and experiments, without attaining an intimate and familiar acquaintance with the studies prescribed. The learner becomes himself the teacher, and he must first learn in order thus to explain his subject to others.

Rev. Dr. ELIPHALET NOTT, President.
Rev. N. S. S. BEEMAN, 1st Vice-Pres.
GEORGE H. COOK, JOHN WRIGHT, M. D, } Professors.

The price for tuition will be $15 per term—two terms in the year—one commencing on the first Wednesday in November, and continuing 20 weeks, and the other commencing on the first Wednesday in May, and continuing 22 weeks. Those who perform a course of experiments in Chemistry with their own hands, are charged $8 extra for chemical substances and apparatus, unavoidably destroyed.

Board can be had from $2 to $2.75 per week.

Troy, Oct. 21, 1844. 1t.

FRUIT TREES.

THE subscribers would respectfully call the attention of the public to their assortment of FRUIT TREES. They are enabled this fall to offer a choice collection of many of the most esteemed varieties of Apples, Pears, Cherries, Peaches, Plums, &c. The assortment of trees having been considerably increased, persons desirous of obtaining articles in the nursery line, will find it worth while to examine the collection previous to purchasing elsewhere. All of which will be offered at very reasonable prices for CASH.

N B. All articles intended for distant transportation will be carefully packed at the expense of the purchaser, and delivered free of cartage to any part of the city.

WILSON, THORBURN & TELLER.

☞ Orders sent to William Thorburn, Seedsman, Albany, will receive prompt attention.

Albany, Oct. 1, 1844—2t.

BUFFALO NURSERY AND HORTICULTURAL GARDEN.

THIS establishment is now somewhat extensive; from 25,000 to 45,000 trees are engrafted or inoculated each year, and these too, mostly from bearing trees, embracing nearly all of the most choice and leading varieties of the Apple, Pear, Peach, Plum, Cherry, Quince, Nectarine, Apricot, Grape, Gooseberry, Raspberry, Strawberry, &c. Also, a large stock of ornamental trees, flowering shrubs, and green-house plants.

The new descriptive Catalogue, recently published, will be forwarded to every post-paid applicant. This Catalogue gives in detail, the name, color, form, size, &c. of the various kinds of fruits cultivated at the establishment, together with ample descriptions of ornamental trees, shrubs, plants, roses, &c.

Trees thrifty and fine; prices moderate. Orders promptly attended to. Trees packed in superior order. B. HODGE.

Buffalo, Sept. 20, 1844—2t.*

FINE FARMS FOR SALE.

THOSE very superior Farms situated near Galway Corners, in the county of Saratoga, collectively known as the Earl Stimson Farm, will be sold cheap and on terms most accommodating to the purchasers as to credit. The property consists of about 340 acres, is so situated as to be conveniently divided into three or four farms, all having the necessary buildings, and will be sold together or in parcels, to suit purchasers. Each farm is properly divided into pasture, tilled and wood land, and is in the highest state of cultivation, fenced in the best manner and with the most durable materials. The property comprises among other buildings, a large and convenient hotel, which is a favorite resort of families in the summer on account of the superior healthiness and beauty of the country. The farming buildings of all kinds are most extensive and convenient for all the purposes of agriculture and the raising of stock. The premises also include a country store, a most eligible location for a country merchant, having been occupied as such for about forty years. It is within two hours drive of Ballston, Saratoga, and Schenectady. The farm is well known among leading agriculturists, and in the agricultural periodicals, as the Pattern Farm. For terms, &c., apply to J. OAKLEY,

Oct. 1.—tf. No. 75 Nassau street, New-York.